THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY.

Vol. VIII. CHICAGO, APRIL 2, 1887. No. 14.

ORIGINAL ARTICLES.

HYSTERO-NEURASTHENIA, OR NERVOUS EXHAUSTION OF WOMEN, TREATED BY THE S. WEIR MITCHELL METHOD.

Read before the Chicago Medical Society, March 7, 1887.

BY FRANKLIN H. MARTIN, M.D.,

PROFESSOR OF GYNECOLOGY IN THE CHICAGO POLICLINIC; FELLOW OF CHICAGO GYNECOLOGICAL SOCIETY.

Hystero-neurasthenia is a name that I will take the liberty of giving to an often recognized class of female difficulties which has not a well defined place in medical literature.

The symptoms of this class of cases are as difficult to enumerate and describe as the individual cases are difficult to manage to a successful issue. Under the term hystero-neurasthenia, I wish to include no symptoms which can be traced to a distinct pathological lesion of any one organ, but to a host of symptoms that can be accounted for in no other manner than by being the result of a partial or general nervous inefficiency, or perversion, of the nerves controlling the organs peculiar to women.

The first of these conditions, nervous inefficiency, may be congenital, or the result of excessive exercise of the functions of the organs of the pelvis, from a long and prolific child-bearing season, excessive cohabitation, or undue treatment of a local variety. The second condition, nervous perversion, will be found the result of excessive brain work, either as a consequence of early study, or from literary excess, teaching, and clerical work common to women of maturer life, the worries of motherhood, anxieties of impending or actual misfortune, prolonged lactation, nursing of the sick, excessive physical labor, and, rarely, masturbation.

The symptoms of this class of cases are too numerous to mention in detail, and inasmuch as each case has its own peculiarities, I will remain content to recite a few of the most prominent and common symptoms. General anæmia, or deficiency of red corpuscles, is a very common, but not universal symptom. The anæmic cases usually complain of loss of flesh, although it is well known some anæmic patients gain flesh; and where this state of affairs exists the functions of the generative organs usually suffer, as is often manifested by coincident amenorrhœa and sterility. Upon questioning these patients the key-note of a general outpouring of subjective symptoms is struck, when the womb is reached in the list of interrogations—bearing-down pains, backache, leucorrhœa, neuralgia in ovarian region, painful menstruation (pain before menstruation, during the flow, and for days following), frequent urination, constipation—"bowels never move without medicine"—painful defecation, neuralgia in all parts of pelvis at regular or irregular intervals, in the ovarian region, one or both sides, uterus, vagina, bladder, perineum, rectum, and even the urethra. Standing and walking is accomplished very seldom without fatigue, and scarcely less rarely without pain in the loins and lower pelvic region.

These sufferers usually have worn out the patience of one or two physicians; many times are pronounced hysterical incurables, who imagine many of their aches, and are therefore considered unworthy of more dignified attention than that required to prescribe an anodyne, a hypnotic or a blister. These cases are much too interesting, and the credit of effecting a permanent cure of too much gratification, to say nothing of duty, for us to be satisfied to listlessly alleviate symptoms, when it lies in our power to do more.

Upon physical examination this class of patients present few well-marked subjective symptoms. There is no evidence of hereditary taints. As this trouble is referred to the uterus, the first local examination is made of the pelvic organs. The vulva is often pale in color from general anæmia. The mucous membrane within the vagina presents a faded, lax appearance. The external genitals are sometimes bathed with mucus secretion from the relaxed vulvo vaginal glands. The vagina is often sensitive, bathed with mucus frequently; at other times abnormally free from secretion. The uterus is normal in size and location, with perhaps the exception of slight prolapsus from the general relaxation of all the surrounding parts. It is very movable, as a rule. The organ is very liable to be marked by hypersensitiveness on pressure. A slight mucus discharge from the cervix, of a milky character, is rarely absent. The cervix is usually pale in color. Pressure in the ovarian region causes pain, or at least a feeling of sensitiveness; the ovaries can be frequently engaged between the hand placed over the relaxed, thin abdominal walls, and the index finger in the vagina, and will often be found considerably enlarged. The *rectum* is rarely found in other than a relaxed condition. There is frequently much tenderness about the anus, with slight nodular enlargement of the external hæmor-

rhoidal veins. Fæces are often found in the lower bowel. The bladder is often sensitive to slight pressure, and not rarely, where the patient is anæmic, will there be a pouching of its neck. The urine is pale, and commonly filled with phosphates and mucus. Upon manipulating the abdominal wall there is scarcely a point that does not seem most sensitive, except, perhaps, the ovarian region. The muscles are flabby and relaxed upon the limbs, although occasionally covered with soft fat.

The heart action in these cases, while not strong, is usually regular. The exception to this is in very nervous patients where, through sympathy of a rebellious or weak stomach, palpitation and heart-burn will be a complication. The capillary circulation is frequently slow, as evidenced by the slow return of the circulation to a part deprived of its blood by pressure of the finger.

The digestion is often fair, but rarely very good. Attacks of nausea are frequently complained of, coming on without any warning and disappearing in the same way. Occasionally downright attacks of indigestion are experienced, which may not be confined to the stomach, but affect the whole digestive tract. These attacks may be accompanied with headache. Spinal tenderness in one or more regions is often present; this will frequently be found quite marked in the lower dorsal or first lumbar region.

Besides the symptoms enumerated, which can be said to rank under the head of hystero-neurasthenia, we may have, in addition, all the symptoms that are common to general neurasthenia, the special symptoms about the pelvis determining the disease, because of their greater prominence and severity. While we have found by general examination of these cases, both subjective and objective, not one organ in the pelvis or abdomen in vigorous health, and not one free from weakness and tenderness, we have not found an actually diseased member—that is, diseased from any pathological condition peculiar to itself, but rather from a general lack of balance between supply and demand in the nutrition of several. And while it is rare for a single case to present all the symptoms above noted, occasionally, as many of us can testify, *all* these and others will manifest themselves in their most aggravating form in one suffering individual.

Though no exact pathology of these cases has been definitely demonstrated, except through the deductions drawn from successful treatment, the fault is generally conceded to lie in a weakened or incomplete state of that part of the nervous system which presides over the nutrition of the organs involved. A general malnutrition, then, of the parts implicated is that towards which we must direct our treatment. As these patients always complain of being tired, the first indication for treatment is rest. As they are almost invariably anæmic, proper feeding is the second indication. As a case is rarely found in which nervous debility is not the rule, seclusion from annoying surroundings is a third indication. Sleeplessness, which is frequently a conspicuous symptom, gives us a fourth indication.

The prominent requirements, then, in these cases are: 1. Rest. 2. Proper Feeding. 3. Seclusion. 4. Sleep.

How can we obtain these four requisites without over-drugging our patients? We must introduce some means by which an irritable body, that is unable to assume the recumbent position without resting upon some painful spot, may lie down without pain. We must feed properly a patient whose appetite is capricious, whose stomach may be irritable and rebellious, whose bowels will not "agree" with anything that is suitable to sustain life. We must put into seclusion patients who imagine they require the sustaining sympathy of innumerable dear ones. We must produce sleep in a class of patients who have long ago worn out all the safe and efficient hypnotics.

I have had experience enough with these cases to satisfy myself that permanent cures can very often be effected by a line of treatment that has been practised so successfully in general neurasthenia by that eminent Philadelphian, S. Weir Mitchell. While Dr. Mitchell was the originator of this systematic line of treatment, of which I can only hope to give merely an outline this evening, it has been adopted with great success by others, and by none with greater success than Playfair, of London.

Dr. Mitchell seeks to meet the four requirements in the treatment of these cases by first getting full control and confidence of the patient. Without this first requisite, the case is a failure. After this is accomplished he makes the remaining part of the problem feasible by a combination of entire rest and of excessive feeding made possible by passive exercise obtained through the use of massage and electricity.

A physician, to treat these cases successfully, must have an eye to detail, possess at least the ordinary amount of tact, perseverance, firmness, and good executive ability. The nurses employed should be educated, intelligent, strong young persons, who are able and willing to work, and who can make themselves very agreeable; who possess tact and firmness, the latter without sternness. They should understand and be capable of performing thorough massage, administer a vaginal douche properly, and be adepts at preparing tempting sick-room delicacies.

In further describing this system of treatment I will give, for the sake of brevity, the details of treatment of a typical case of the kind that recently came under my observation:

The patient, a young married lady in the better class of society, without children, had been treated for "womb difficulties" for three years by at least two St. Louis physicians, from which city she had recently moved to Chicago. She had gradually become worn out from unsuccessful local treatment, and was about to give up in despair. She was in an extreme state of anæmia; had been gradually reduced in flesh from 120 to 100 lbs. Menstruation irregular and painful throughout. Bowels never moved without assistance. Appetite gone, and what little food she could be induced to take remained like a load on her stomach and gave her considerable pain. Besides the loss of appetite and indigestion, she had considerable ovarian neuralgia, general pelvic hyperæsthesia, and intense sacralgia. She was also troubled with persistent insomnia.

Physical examination elicited no localized patho-

logical condition. Uterus natural in size and location, and movable. Ovaries not enlarged, but very tender. While there was general hyperæsthesia in every direction from the vagina, there evidently was no cellulitis or peritoneal inflammation. The urine was normal.

The scheme of treatment mentioned above was explained to the patient, and she immediately acquiesced when advised to make a trial of it. Contrary to Dr. Mitchell's advice, she was not separated from her family, there being but her husband, and he at home but a small portion of the day. Be it remembered, she was unable to retain even a very little of the blandest food without distress.

She was immediately put upon an exclusive milk diet. The diet for the first day was laid down as three ounces of milk every three hours. She took at this rate, in the first twenty-four hours, twenty-one ounces of milk. The second day the amount was increased to twenty-eight ounces by increasing each allowance to four ounces.

The third day, as the patient was doing remarkably well and the stomach was free from pain, one ounce of thinly cut stale bread, well toasted, was given in addition to the milk that was due at the three regular meal times.

The fourth day six ounces of milk were taken every two hours, with double the amount of toast that was given the day before. All the dyspeptic symptoms had at this time disappeared, and the patient, notwithstanding the amount of milk taken, commenced to ask for her meals.

The fifth day she was allowed in addition to the milk, for breakfast, about one and one-half ounces of finely chopped steak of beef rarely broiled; this, with about one ounce of stale bread with butter, was taken with great relish, and without subsequent distress. At noon, on account of a little feeling of nausea, she had nothing except her regular milk diet. An afternoon sleep left her with an appetite for her supper. She was then given three or four raw oysters, with toast and a small cup of tea. This was taken with relish, and there was a disposition to take more.

The sixth day, on account of the patient exhibiting a slight disgust for the large doses of milk, the allowance was reduced to four ounces, it being rendered more nutritious by making it one-third cream. Besides the twenty-eight ounces of milk and cream, she was given this day the juice from one pound of beef in three doses, at 10 A.M. and 3 and 8 P.M. Besides this, the patient took part of a cup of coffee and an ounce of bread with butter for her breakfast, a lamb chop for her dinner, with bread and butter, and raw oysters with toasted crackers and butter for 6 o'clock supper.

From this time on while the patient remained under treatment with me, she had no trouble, with judicious care in its selection, in retaining and relishing an incredibly large amount of food. She would take, besides three large meals a day, a quart of milk and cream, and the juice from one-half to one pound of beef.

The digestion and assimilation of this large quantity of food by an irritable alimentary canal was made possible by systematic passive exercise. The routine of treatment for the day in this case was as follows: At 8:30 A.M., or as soon as the patient had awakened, she was given a light sponge bath, her hair was arranged, and her milk and breakfast taken. At 9:30 A.M., if the bowels had not moved spontaneously, a small rectal injection of soap and water was administered. This was not found necessary after a few days' treatment. At 11 A.M. or thereabouts the patient was given general faradization with an idea of reaching all the motor points of the superficial muscles. The region of the colon, especially of the transverse and descending colon, with special efforts at stimulating the rectum, was systematically sought. This treatment required from three-fourths to one hour's time. The patient usually took a short nap after this treatment. About 1 o'clock she was induced to take a light dinner, or, more properly, lunch.

In the afternoon, if necessary, the nurse would interest the patient by light reading for an hour, if she were not inclined to sleep, which was frequently the case. At 5 o'clock a light, rapid sponge bath was administered, followed by gentle rubbing of skin with a dry bath glove. This proceeding occupied thirty minutes, after which the patient was again allowed to rest for an hour. At 6:30 or 7 P.M. she was given her dinner. The milk, in the meantime, had been administered at regular intervals throughout the day. After the dinner or supper the patient was read to or amused in some way, or, if she was so inclined, allowed to sleep. Nothing, except the amount they eat, will astonish one more than the amount of sleep some of these patients seem to require.

At 8:30 or 9 P.M. the regular preparation for bed commenced. This began with a systematic massage which included all parts of the external muscular system, and occupied about one hour. The patient was then moved to a couch, given a large vaginal douche of hot water while in the recumbent position; her bed in the meantime was changed, and she was at last, after a hard day's work in which she had been but a passive laborer, deposited in it for the night.

This patient remained under this systematic treatment for about eighteen days only, at the end of which time it did not seem necessary that she should be kept under such close observation longer. She expressed a very strong desire to go with her husband, who was about to make a business trip South. Inasmuch as she was, to all appearances, now perfectly well, I gave my consent to this arrangement. She could take and digest more food than she had been able to for years, without a dyspeptic symptom; her menstrual period had passed without a pain; the pelvic hyperæsthesia, while not entirely subdued, was much improved; the vaginal leucorrhœa was entirely checked. The patient had gained ten pounds in weight. Her skin was now ruddy and healthy in appearance, and she felt strong, well, and in the best of spirits when she left the city. I have since seen the patient, and she assures me that she is in the best of health, and she certainly appears so.

All cases, however, in which the treatment described here seems applicable, will not give the brilliant results that twenty days' treatment accomplished

for me in the above case. Every symptom of importance here disappeared after four days' treatment, and subsequently there was nothing left to accomplish but to increase the flesh and strength of the patient. The getting-up was gradual; at the end of about the ninth day she was allowed to sit up in a large upholstered armchair for one hour in the forenoon. This was followed rapidly with greater liberty, and at the end of the fifteenth day she was about the room fully dressed; and at the end of the twentieth day was ready to travel.

Frequently grave complications are met in the treatment of these cases. Occasionally a patient has been thoroughly disgusted with milk on account of excessive use of it in previous treatments. Others have the impression that it "makes them bilious," and it is not taken on that account. By taking pains to explain that milk is one of the most perfect forms of food, and that it is an important factor in the successful treatment, most patients will be induced to try it in small, often repeated doses. There is occasionally a patient found, however, who cannot take milk in the raw state; the taste is objectionable, and the stomach rejects it. In such cases milk will often be well received if prepared with Fairchild Bros. & Foster's peptogenic milk powder. This is often also a valuable addition when the patient becomes tired of milk late in the treatment. Beef juice prepared after Weir Mitchell's formula, either raw or cooked, is sometimes a good substitute. Patients are frequently found who can take scalded milk who cannot bear it in the raw state; and, again, frequently if mixed with cream, when milk alone nauseates. Where this important article of diet is not tolerated under any disguise, other food must be adopted which will accomplish the same end. Here, in selecting a suitable substitute for milk from the long list of natural and artificial foods, is where the ingenuity and experience of the physician are heavily taxed.

Occasionally among these patients will be found one who requires an alcoholic stimulant. This is often indicated where there are sudden attacks of nausea. Hoff's fluid malt often arouses a desire for food, if given three or four times a day in small doses; the hop principle often acting, in addition, as a pleasant hypnotic in these cases.

Where the bowels are not sufficiently stimulated by the manipulation and faradization to cause an evacuation daily, a capsule containing ext. nux vomica ¼ gr., ox. gall. gr. ij, aloin ⅙ gr., or something similar, should be administered at bedtime.

In spite of feeding, rubbing, and faradization, patients are occasionally found whose insomnia will persist. These cases I endeavor to control by giving them a hypnotic in such a way that they are not aware of the fact, and are led to attribute the sleep to the treatment. A favorite method is to saturate a loose vaginal tampon with a solution of chloral in glycerine and insert it the last thing at night. Sufficient chloral is absorbed to produce sleep, and the local anodyne effect upon the surrounding organs is not unpleasant. This can gradually be reduced in strength as the effect of the general treatment is sufficient to make it unnecessary. I have found also the triple valerianate pill of quinine, zinc and iron, as manufactured by W. H. Schieffelin & Co., valuable in cases in this condition. Asafœtida pills are sometimes valuable at this point. The pills manufactured by Eli Lilli & Co., of Indiana, conceal the taste and odor of this drug perfectly.

The urine should be examined occasionally in these cases to guard against harm arising from the excessive feeding.

If iron is indicated it can be given in small doses advantageously, in the fluid malt, or, in case malt is not an article of diet, in a capsule. For administration in malt citrate of iron, quinia, and strychnine in 1-grain doses make an elegant preparation.

Success, however, depends much more upon the attendance the patient receives than upon the selection of drugs. Massage is given here with the idea of producing as much tissue change as possible, and the nurse who can accomplish the best results in this direction, as indicated by the amount of food taken and assimilated, is the greatest success. The faradization I do not usually intrust to a nurse, although an intelligent trained nurse can soon be taught to manipulate the faradic machine. The end sought here is simply to cause contraction of all the muscles of the body that can be brought under its influence, and to stimulate the circulation. For this purpose I place a large electrode under the two feet of the patient as she lies in bed with knees flexed; this electrode is attached to one pole of an ordinary interrupted faradic battery. At the other pole I attach a bifurcated cord terminating in two small hand electrodes, made to fit the palm of the hand in such a manner as not to interfere with the flexion of the fingers. A process of kneading or petrivage is performed over the surface of the body, dwelling particularly upon the motor points of the muscles, while the current is simply strong enough to produce an agreeable prickling sensation.

In this paper I have not been able to do more than to give the merest outline of a treatment of a condition which we all often meet in practice. In citing the particular case I have, I did so because of its being a typical one of the kind, and one in which the complete treatment in its most uncomplicated form could be demonstrated as a success. From this any intelligent physician can readily comprehend the scheme of treatment, and can as readily understand how many difficulties might arise that would complicate the treatment, at the same time not necessarily proving insurmountable barriers to its ultimate success.

163 State St.

WATER CLOSETS AND PRIVY VAULTS.

Abstract of a paper read before the Ohio State Sanitary Association, February 10, 1887.

BY JOHN McCURDY, M.D.,

OF YOUNGSTOWN, OHIO.

MEMBER OF OHIO STATE SANITARY ASSOCIATION, MEMBER OF THE YOUNGSTOWN BOARD OF HEALTH, ETC.

To those who have given study to the above subjects they rank them first in importance. They

know that to construct a perfect water closet or privy vault, the complete mastery of the laws governing gases and organic germs must first be made. What is any house, however elegant in appearance, or expensive in construction, without either one or both of these appliances of the most recent pattern, but a modified "Black Hole of Calcutta?" It is but a place of confinement where *malaise*, headache, debility, and low vitality dwell, and where the organic germs of fever, diphtheria, scarlatina, measles, cholera and small-pox find their habitat.

The sanitarian of to-day, to be at his best, should be familiar with all that chemistry can teach, mechanics demonstrate and engineering plan. So vast, intricate and numerous are the laws of sanitation, we can, at present, no more make them all subservient to our wills, than we can make a plain of the vast rock-ribbed mountain of our far west. But if we are incessant, earnest, and honest in our struggles for facts, we can pierce these laws as the mountain ranges are pierced, and utilize the materials found for the lengthening of life, and the perfecting of health.

First, then, what can be said regarding water closets? We can say that the three classes of men who prosecute both the science and art of sanitation, the physician, the plumber and the engineer, have attacked this problem together and singly, month after month, year after year, each marked by unremitting thought, and plan, and experiment, until a substantial, if not a triumphant victory has rewarded their perseverance. These workers have brought forth closets, numerous and various in style as leaves of autumn, that not only squarely meet all foul and fatal eminations from all forms of human excreta, but flank, surround and compel to surrender all the forms of bacteria, bacilli, micrococci and their vast progeny.

The essential parts of all these closets are the bowl, the container, the trap, with water seal or seals, supply soil and vent pipes. Some makes contain all the above parts in their construction, some only a portion. The thought that has filled the minds of all closet makers is how to control the gases—the odors—and especially the death laden germs. With every form of closet, save one, the trap is relied on in the soil pipe, whether leading from closet, bath tub or kitchen sink. Without this imperious necessity called a trap, the more sewers, soil pipes, waste pipes, and even ventilating pipes we put into our houses the more surely will they be dens for thieves to steal our health, and threaten, and eventually take our lives. Our houses are but expensively constructed receivers of foulness, and festering filth, containing "pestilence that walk in darkness and destructions that walketh at noonday." What then, is the nature of this seemingly imperative necessity? It is simply a bend in the pipe leading from the closet, a half "S," three-quarter "S," "S" or "D," a bag shape, a bottle shape or a bell shape. But they are all but different kinds of bends. As the art of plumbing is more and more advanced, the simple half or three-quarter "S" is preferred. I can say, then, the trap "is only that and nothing more." Behold then how great a matter a little trap preventeth. Of course these bends are placed there that the most depressed portion will at all times be filled with water. The water thus retained is called the water seal. And this little pool of water, often very impure, very offensive, and very foul, may be all that stands between us and death.

Now, a word about some of the closets in daily use with us. I cannot speak of all of them, or even of all the leading kinds, or perhaps, not even of the very best kinds. The first I shall notice is the "Hilliard Hopper." This is one of the most simple in construction, having but a bowl attached to a four inch soil pipe with a three quarter "S" trap. A tank is used for the water supply, and is self-acting, that is, pressure upon the seat causes a dash of water to wet the bowl, and upon removing the pressure an additional dash of water completes the action. The last gush is supposed to carry the deposit through the trap and also leave the trap full of pure water as a protection. For places where the closet is in almost constant use it answers fairly well; but for occasional use, I do not approve of it. In the first place, as now made, it does not use enough water. In the second place, while in use the gases from the deposit are constantly passing off into the room. And thirdly, the rush of water is not always sufficient to carry the deposit well through the trap and into the soil pipe. Indeed, in certain cases, quite a portion is left to decompose and poison continuously the atmosphere. The next is the "Zane Sanitary Closet." This is much more complicated and in some respects a better closet. It has a double protection in the form of two water seals; one in the pipe and one in the bowl, and it uses more water. Very similar in construction is the "Demorest." They are both plungers, and both leave flushing chambers.

These closets have many excellent qualities and are generally very satisfactory to those who use them. My objections to them are that nothing leaves the bowl when in use, and will not leave it except when the handle is pulled up, so that they are not well suited for children, imbeciles and careless people. But in the opinion of Dr. Tracy, of New York, and others, the most threatening defect is in the plunging chamber, which, in time, is coated with a very foul organic matter that is a favorable bed for the rapid culture of disease producers. In many of the most carefully plumbed houses of our town containing these closets, diphtheria has again and again visited different members of the family, and the supicions were centered on the foul flushing chamber as the cause. I only note this suspicion. My own knowledge does not verify it. While there is no trap closet I would recommend, that I know, I am very favorably impressed with a closet made by the Kelly Bros., of Chicago, and called the "Self-acting Water Closet." While not familiar with its actual working, it contains principles so often tested, that I would consider the time well spent, had I a house to furnish, in making myself thoroughly acquainted with it.

The question is often asked, can we get something better than the common "S," or at least something

which will assist in making the seal more perfect? Many efforts have been made and appliances adopted. Notably among them is the "Bowers Trap." This is a rubber ball that floats upon the water seal, and being made very carefully, as is also the trap, it fits accurately against the bottom of the pipe and so remains while the closet is at rest, and is intended to assist the seal in effectually preventing the escape of sewer gas. My experience with this trap is favorable, but those who perhaps know much more than I, object to it on the ground that gases form a stratum immediately under the ball, and when it is displaced by sewage, this stratum passes at once into the apartment. I have been much interested in the study of another ball trap on a wholly different plan. It is an invention of H. C. Lowrie, a member of the Denver Society of Civil Engineers. It is a rubber ball filled with shot, and for a four inch pipe, weight four and a half pounds, and so firmly is it seated that it takes twenty-five pounds of pressure to displace it. The trap used with this ball has a sort of elbow, or "race way" the inventor calls it, through which the ball rolls when displaced by the proper weight of sewage, only to at once take its place again when the pressure has passed, and firmly keep it, thus forming a perfect seal in all respects and doing away with vent pipes of all descriptions. Of course, in the construction of these balls and traps, everything must be of the most accurate make, and of the best materials, which must add considerably to the expense of furnishing a house. This is to me a great recommendation, as the most expensive materials of all kinds only should be chosen if they are of intrinsic value; for plumbing should be done regardless of cost.

In my opinion, there is not a more senseless practice than that of hawking a plan for plumbing from shop to shop, for the lowest bid. The builder of a house is as helpless in the hands of the plumber as he is, when sick, in the hands of the doctor. All kinds of frauds, experiments, and mal-practice can be heaped upon him, while he, all the time, is utterly unable to detect the impositions. If economy must be practiced, let it be done by doing without some of the multiplied gables, projections and oppressive ugliness of the so-called Queen Anne's and Mansard additions. In the midst of all these subtile agents, it is a comfort to know that experienced chemists like Pumpilly, Wernich, and many others, have found that a good water seal with the usual surroundings, will prevent all organic particles from passing back, and nearly all of the different sewer gases.

I close what I have to say on closets with a word for one with which I am familiar. The inventor is a resident of Youngstown, Ohio. So confident is he of its unequaled qualities, that he has placed them in some of the hotels and resorts, where they would get the most trying tests, agreeing to remove them at his expense if not fully approved. This inventor throws aside traps and vents of every kind, and places the closets upon a straight soil pipe. This closet consists of a seat, with air space in front between it and bowl, two supply pipes, one for the flushing rim and one for a spray seal near the bottom of the bowl, a copper cup, with or without a rubber ring that comes up and surrounds the lower end of the bowl and contains water on both sides of the end. The operation of this closet is as follows: Pressure being made upon the seat, the cup is at once carried to the side, the valves of both supply pipes open at the same moment, and two strong streams of water flow, one around the rim, and the other dashing in a thick sheet of spray across the lower end of the bowl before falling into the straight soil pipe. The action of these currents produces a rapid suction into the soil pipe carrying with them instantly all deposits and gases. These currents are continuous, and cease only when the weight is off the seat, at which instant the cup again takes its place and is rapidly filled by the last proportions of water of both supply pipes. Here we have an odorless closet, and one that neither allows gases nor deposits to remain an instant in the bowl, a quality no other closet has, of which I have ever read or seen. It was put to a crucial test in one of our plumbing shops. Three of the approved closets were placed in a row with it over the same soil pipe, a four inch, and filled for use. This soil pipe was heavily charged with illuminating gas, and although used repeatedly, not the slightest odor could be detected either during use or at rest. I have no hesitation in pronouncing it by far the best closet with which I am acquainted; and I say this in the exact language required by the Government Pension office, viz: I hereby vertify that I have no interest either direct or indirect in this closet. It is called "The McAndrews Spray Seal Trapless Closet."

Now, a word as to privy vaults. I have nothing to say in their favor. They are to-day, the most unmitigated, and unpardonable nuisance that infests the face of the earth. The idea of digging a hole in the ground for a permanent receptacle of human excreta, is the most depraved conception of civilization ever found in the desolate wilderness of man's brains. Sanitarians must face the subject squarely, for there is not a city, town, village, or country that is not honey-combed by them; and at this hour, the diggers with bended backs and sweating faces, are adding to the number by tens of thousands. It is but a quesion of time when all our surroundings will be fully saturated; the ground-air charged with virulent poisons, and the ground-water saturated with the germs of death. But the greed and disregard many have for the life, feelings and health of others, render it necessary for every health board to bow before their strength and compromise by mournfully saying, "dig, but the board will determine of what the bottom and sides will be." Brick, or stone and cement are chosen. Each brick will soak up at least one pint of liquid excrement; each stone absorbs the same as if a sponge.

Now with a vault walled with several hundreds of bricks, or many tons of porous stones, either or both of which are fully saturated with vault contents, which in turn, are surcharged with baccilli, micrococci, and all the other germs possible to convey or generate disease, and as these press into the air or ground, instantly the same pores are again filled, this time,

may be, with the discharges of cholera, typhoid, scarlet or yellow fever, diphtheria, dysentery, small pox or measles. How long can we be without epidemics while this order of things lasts?

The question now presents itself, is there any other good way of disposing of excreta save by closet and water carriage? I say most confidently, yes. In city, town, village and country, let every hole, vault and receptacle be cleaned, and filled with fresh and pure material, and having placed the privy upon a solid and well-aired foundation, convenient to the house, and somewhat secluded, and if this privy is six by four feet, place under it a box seven by four, this being kept off the ground by substantial stone corners, and this whole problem is solved, while purity, health, decency, and comfort are secured. This box can be furnished water-tight, thoroughly coated inside and out with hot coal tar and placed in position for $2.25. The projecting foot is covered with a neatly fitting plank, which is all that is displaced and set aside in the removal of contents. The scavengers of our town are anxious to contract for their proper care, removing contents without the knowledge or supervision of the owner, and dispos- of same, at the rate of $4 per annum. The ashes are saved and thrown into this box instead of upon the ash heap. Use lime, or earth or copperas if there is supposed to be occasion, but which, with my daily experience of ten years is, in my opinion, not necessary, the ashes alone from an ordinary house being amply sufficient. Another great advantage is, that the mass to be removed is so nearly odorless and dry, it can be removed at any time without giving offense.

To those unacquainted with the absorbing and deodorizing powers of earth, ashes or lime, I would say that they are marvelous. Those of us who study our Bibles as well as sanitation, find that this subject was dignified and emphasized by the direct command of God.

"Thou shalt have a place also without the Camp, whither thou shalt go forth abroad. And thou shalt have a paddle upon thy weapon: and it shalt be when thou wilt ease thyself abroad thou shalt dig therewith and shalt turn back and covereth that which cometh from thee. For the Lord thy God walketh in the midst of thy Camp to deliver thee and to give up thine enemies before thee, therefore shall thy Camp be holy: that he see no unclean thing in thee and turn away from thee."

The system I advocate so earnestly is not only suited to the isolated cottage, or elegant country house, but also to the mighty city, as year after year demonstrates in the case of Manchester, with her half million of people; or Glasgow, with her hundreds of thousands; or Rochdale or Heidelberg with their tens of thousands.

SPLENECTOMY FOR WANDERING SPLEEN.

BY WM. H. MYERS, M.D.,

OF FORT WAYNE, IND.

MEMBER OF THE BRITISH MEDICAL ASSOCIATION, OF THE LONDON PATHOLOGICAL SOCIETY, ETC.

In 1877 I was called to treat Mrs. H., æt. 32, living in the western part of Ohio, a malarial district. She was received into the St. Joseph's Hospital, at Fort Wayne, Ind., where I treated her for an enlarged spleen. In six weeks she left for her home, very much improved, the spleen being reduced almost to its normal size. In March, 1885, I was again called to visit her, in consultation. I found a large tumor occupying the lower portion of the abdominal cavity; it was believed to be an extra uterine fibroma. During the consultation I mentioned the previous history of the case, and the possibility of the tumor being a misplaced and enlarged spleen. She died July 20, 1885. I made the autopsy and discovered that the tumor was the spleen. It had gravitated downward until its lower portion occupied a portion of the pelvic cavity. The immediate cause of death was peritonitis.

After reviewing the history of this case and noting carefully the condition of the blood-vessels and the extent of the adhesions, I was strongly impressed with the idea that, in this case at least, the enlarged and displaced spleen could have been removed with success. So strongly impressed was I, that I determined, if in the future a similar case should present itself, I would attempt it.

In November, 1885, I was called to La Grange to visit Mrs. McKinley. She had a tumor in the left hypochondrium, and complained of pain and a sense of weight in the same region. Her symptoms and the history of the case pointed clearly to splenic disorder of malarial origin. Tertian intermittents filled an important chapter in the case. She had tenderness, nausea, and hæmorrhagic tendencies.

The tumor, at my first visit, occupied the umbilical region. The diagnosis being well defined, I prescribed quinine in large doses, with iodide of potassium occasionally; this treatment was to be pursued persistently. In February, 1886, I visited England, and knew nothing of the progress of the case until after my return in May, 1886. About this time I received a letter from her husband, in which he informed me that the tumor had increased in size, was much lower in the abdomen, and that she was pregnant.

On October 2, 1886, I received a telegram to "come at once." During this visit I met her attending physician, and from him I learned that she gave birth to a living child three weeks before. Upon making an examination I discovered that the tumor was then resting on the brim of the pelvis, and extending above the umbilicus. It had suppurated, and three sinuses existed, communicating with the abscess. The discharges were offensive, almost intolerable. She was emaciated, had chills with profuse perspiration at night, and great loss of appetite. She did not attempt to nurse the child. Her surroundings deterred me from venturing to relieve her by any surgical procedure at her home. By agreement she was brought to Fort Wayne and placed in the St. Joseph's Hospital.

Upon her arrival her condition was one of extreme exhaustion, and grave fears were expressed that she would not survive the operation. A consultation was held with Drs. B. S. Woodworth, H. McCul-

lough and H. S. Myers. The removal of the tumor was decided upon as the only expedient to be thought of.

The cleansing of the skin over the tumor and for some distance around was carried out by washing it with a carbolic acid solution, 1–20, after which stimulants were administered, when she was placed under the influence of ether and removed to the operating table. The line of incision was six inches in length, extending two inches above the umbilicus and made in the *linea alba*. During the progress of the operation the strictest antiseptic precautions were observed. Silk ligatures, previously carbolized, were applied to the bleeding vessels and then cut short; the hæmorrhage was thus arrested completely before dividing the peritoneum. The peritoneum was caught up with forceps and incised with a knife sufficiently to admit the completion of the incision with scissors. This was followed by a free discharge of sero-purulent fluid, received upon the towels and sponges conveniently placed for this purpose. The tumor was now freely exposed, and proved to be a displaced and wandering spleen, indurated and greatly enlarged lying in a peritoneal abscess. I succeeded in lifting the spleen from its resting place, the brim of the pelvis, and in securing the pedicle, composed of the vessels and fibrous tissue, much elongated. While the tumor was partially lifted from its bed, I succeeded in transfixing the pedicle with a needle, armed with a double thread of silk, and ligated it in two portions. The pedicle was then cut short and dropped back into the cavity occupied by the spleen; so also were the ligatures. Into the cavity occupied by the spleen carbolized sponges were introduced repeatedly until the hæmorrhage was entirely arrested. This was followed by the insertion into the lower angle of the wound of a large size glass drainage-tube, and I proceeded to close the wound with stitches of silk thread, including the peritoneum. After the edges of the wound were carefully approximated and the surface washed with carbolized water, protective gauze was placed over the line of incision and over it a layer of carbolized cotton and antiseptic gauze; and over these a firm snug-fitting flannel bandage; over the mouth of the glass tube, carbolized gauze. The spleen weighed 7 pounds.

The patient was now removed and placed in bed, wrapped in warm blankets and bottles of hot water placed about her. The evidence of shock disappeared in a few hours. The after-treatment consisted in the administration of tonics, stimulants and food, washing out the abscess cavity daily with carbolized water, 1–20, until the removal of the drainage-tube; this occurred on the twelfth day.

On the ninth day the first dressing was removed and union was found to be almost complete; the deep stitches were removed, and the superficial stitches allowed to remain until the fourteenth day.

Her pulse never exceeded 110, and her temperature never exceeded 102°. Her appetite improved rapidly, and her previous bad symptoms disappeared, so that in twenty-one days she was enabled to leave the hospital, and her recovery at the present time is complete.

While dislocations of the spleen are unusual, yet we find cases recorded by Haller, Dessault, Dunglison, Cragie, Riolanses, Wilks and Moxon, and Küchenmeister. Rokitansky, in his "Pathological Anatomy," describes three cases. In the first case he found the spleen upon the right ilium, attached to a twisted pedicle, containing the vessels. In the second it was in the left iliac region, being joined to a long pedicle. M. Kurns related a remarkable case, in which the spleen was mistaken for a strangulated hernia in the left inguinal region; the tumor was the size of the fist, and the splenic vessels formed a large cord leading to the left hypochondriac region.

The cause of these displacements is elongation of the ligaments, and in many of them the spleen has undergone great changes in form, being sometimes thick and round, with the edge ill-defined, increased in size and weight.

Conclusion.—While the weight of surgical authority is decidedly opposed to splenectomy, yet in a case in which the diagnosis is clearly made out, the spleen isolated and suppurating, or lying in a peritoneal abscess and death imminent, I believe, with John Knowlesly Thornton, that where it can be clearly shown that the condition is causing immediate danger to the life of the patient, the attempt to save life by the extirpation of the spleen is justifiable.

FIVE CASES OF LARGE VISIBLE PULSATING ARTERY ON THE POSTERIOR WALL OF THE PHARYNX, WITH REMARKS.

Read at the Meeting of the Section for Clinical Medicine, Pathology and Hygiene, of the Suffolk District Medical Society, February 9, 1887.

BY J. W. FARLOW, M.D.,
OF BOSTON.

Case 1.—E. N., a girl 13 years old, came to me at the Boston Dispensary, complaining of nasal catarrh and enlarged cervical glands; she had also an atrophic pharyngitis. My attention was immediately drawn to two large, pulsating vessels on the back of the pharynx. about quarter of an inch inside the posterior pillar of the fauces, and lying directly beneath the mucous membrane. By slightly depressing the tongue the lowest point of the pulsation was easily seen, the upper limit was a little higher than the base of the uvula. The vessels were nearly vertical, and the left one had a more marked pulsation than the right. To the finger the impression was given of an artery fully as large as the radial. The patient knew nothing of this condition of her pharynx. Thinking that the large cervical glands might, by pressure, be the cause of this pulsation, I watched carefully to see if the vessels diminished in size as the glands grew smaller. But such was not the case. The glands entirely disappeared and the nose much improved, but the pulsation continued as before. I saw her the other day, eighteen months after her first visit, and found no change in the vessels.

Case 2.—Mary C., 18 years old, came to me complaining of nasal catarrh and some atrophic pharyngitis. There was a large, pulsating vessel on the

posterior wall of the pharynx on the left side, as in Case 1, but none was seen on the right. There were no large cervical glands.

Case 3.—Annie M., 23 years of age, came to me for post-nasal catarrh. On the back of her pharynx were two large, pulsating arteries, almost an exact counterpart of Case 1.

Case 4.—This was a woman about 30 years old, and was seen at the Massachusetts General Hospital, by Drs. F. I. Knight and F. H. Hooper. No notes of the case are at hand, but Dr. Hooper thinks the large vessel was on the back of the pharynx, about halfway between the uvula and the posterior pillar of the fauces on the right side.

Case 5.—A little girl, 4 years old, came to me for nasal catarrh. On the posterior wall of her pharynx on the right side was a large pulsating vessel, as in the other cases. The glands of the neck were slightly enlarged. A sister, 5½ years old, has beginning atrophic pharyngitis and rhinitis, but no artery visible.

All the other cases seen by me were women, and in all the pharynx was atrophic, in two markedly so, the mucous membrane being thin, dry and shining.

This condition must be very rare, for I find no mention of it in text-books or in the literature of the subject. In my service of five years in the throat-room of the Boston Dispensary, I had never met with a case, and yet my three cases were seen within a week or two of each other, as is often the case with rarities.

In regard to what vessels these are, let us look at the normal blood-supply of the pharynx. The pharynx receives its blood principally from the ascending pharyngeal, a branch of the external carotid, and the ascending palatine, a branch of the facial. Cruveilhier[1] says: "The ascending pharyngeal is the smallest branch of the external carotid. Its calibre is in inverse proportion to that of the palatine branch of the facial. I have seen it as large as the occipital. Its pharyngeal branch subdivides at the base of the skull into several branches which penetrate the very dense fibrous tissue at the insertion of the pharynx to the occiput. These then turn downward, and terminate in the walls of the Eustachian tube and the muscles of the pharynx. In a case of absence of the palatine branch of the facial I have seen the pharyngeal branch, very large, supply the tonsil and ramify and lose itself on the veil of the palate."

Sappey[2] says: "The ascending pharyngeal is distinguished from the other branches of the external carotid by its small size and vertical direction."

Gray[3] says: "The largest of the pharyngeal branches of the ascending pharyngeal passes inward, running upon the superior constrictor, and sends ramifications to the soft palate, Eustachian tube and tonsil, which take the place of the ascending branch of the palatine when that vessel is of small size." With regard to the ascending palatine Gray says:[4] "It passes up between the stylo-glossus and stylo-pharyngeus to the outer side of the pharynx. After supplying these muscles, the tonsils and Eustachian tube, it divides near the levator palati into two branches; one follows the course of the tensor palati and supplies the soft palate and palatine glands. The other passes to the tonsil which it supplies, anastomosing with the tonsillar artery. The tonsillar branch passes up alongside of the pharynx and, perforating the superior constrictor, ramifies in the substance of the tonsil and the root of the tongue."

According to the above descriptions it seems as if, in my cases, the vessels were the ascending pharyngeal arteries, from their situation on the superior constrictor and their vertical direction, and, inasmuch as mention is made of the increased size of the vessel when the ascending palatine is small, it is possible that the latter vessels in my cases were unusually small. The atrophy of the mucous membrane allowed the pulsating vessel to be seen more readily.

The surgical importance of these cases is sufficiently apparent. In case it were necessary to make an incision in the back of the pharynx, as in retro-pharyngeal abscess, we see how great the risk of an alarming hæmorrhage might be. In all cases, where possible, it is advisable to examine with the finger before operating, to see whether an artery of abnormal size or situation is present.

Dr. Porter[5] relates a case of recurrent hæmorrhage from behind the left tonsil, which he thought came from the tonsillar artery or from a branch of the ascending pharyngeal; also a case of hæmorrhage from an ulcer on the posterior part of the soft palate, probably from the same vessels.

Dr. E. Carroll Morgan, of Washington, D. C., who has recently written a paper on "Hæmorrhage following Uvulotomy," writes me as follows: "Obstinate bleeding following uvulotomy is, in my opinion, often due to the condition your cases so well illustrate. Literary research has surprised me, I confess, and I have now collected seventeen cases of dangerous hæmmorrhage after this simple operation. Twelve of these have never been published and were obtained by personal letters. Strange as it appears, the possibility of an anomalous artery being a factor in the dangerous hæmorrhages which have followed uvulotomy has never been mentioned in connection with reported instances."

These arteries must also be taken into consideration in cases of surgical treatment of the tonsils. Many cases of hæmorrhage following tonsillotomy are reported. In most of them no mention is made of the finding of an artery of unusual size, but it seems to me that a careful examination would have revealed this condition in some of the hitherto unexplained cases of hæmorrhage.

Downie,[6] speaking of tonsillotomy, says: "Of the vessels in the immediate neighborhood, the ascending pharyngeal is the only one which might be damaged, and this only in unwarrantably free incision into the tonsils, never in excision." Billroth[7] removed the left tonsil of an hysterical lady. The organ was

[1] Anat., vol. iii, p. 86.
[2] Anat. Descrip., vol. ii, p. 575.
[3] Anat., p. 454.
[4] Anat., p. 451.

[5] Trans. Am. Med. Ass'n, 1882, p. 511.
[6] Edinburgh Medical Journal.
[7] Lancet, 1870, vol. ii.

pulled toward the middle line, and a fold of the pharyngeal mucous membrane was probably drawn out and cut with the tonsil. A fearful hæmorrhage occurred, which Billroth thought came from some large branch of the ascending pharyngeal.

In Schmidt's "Jahrbücher," vol. 186, is related a case of severe hæmorrhage after cutting off the left tonsil. Various hæmostatics were tried unsuccessfully, and in three hours the common carotid was tied. In this case the cause of the hæmorrhage was thought to be some abnormal ramification of the vessels.

Other similar cases might be cited, but these will serve to show the importance of bearing in mind the possibility of having to do with a condition such as I have described, and also the need of making a thorough examination before operating on the throat.

A CASE OF EMBOLISM OF THE LEFT VERTEBRAL ARTERY, WITH AUTOPSY.

Read before the Section for Clinical Medicine, Pathology and Hygiene, of the Suffolk District Medical Society, February 9th, 1887.

BY F. W. STUART, M.D.,

OF BOSTON.

G. W., aged 62, came to the Carney Hospital on December 31, 1885, with the following history: His grandfather, father, two brothers and one sister had died of what he called "softening of the brain," and the account given of the disease, rendered it probable that they had had general paresis. In other respects the family history was negative. The patient considered himself well until three years ago, though he had for years been very corpulent, weighing at one time 250 pounds. In the fall of 1882, he fell and injured his knee, but attached no importance to the injury, though it obliged him to limp about for a time. Soon after he began to have trouble with his eyes and was operated on for cataract at the eye and ear infirmary, where he learned incidentally that he had fractured the patella of the left knee. For the last three years his health had been poor, loss of strength, weight, and appetite being the most prominent symptoms, added to which for the last few months there had been attacks of severe pain in the stomach, and vomiting, which lasted for from twenty four to forty-eight hours and always began at night, when they were also most severe. The patient was positive that the attacks began about midnight, and the ingestion of food seemed to bear no relation to them. The vomitus was as a rule, of a black or dark brown color, and once or twice was distinctly like coffee grounds in appearance. The patient admitted having used alcohol rather freely during his younger days, though for ten years past he had been a total abstainer. When at the hospital he was cachectic and some chronic affection was suspected. Physical examination failed to reveal anything except a decrease in the area of liver dulness. Careful examination of the urine, chemically and microscopically, showed nothing pathological. No diagnosis being made, an expectant treatment was entered upon, under which the patient improved, and ceased visiting the hospital.

On March 10, 1886, during the service of Dr. W. N. Bullard, he reappeared, and a diagnosis of probable cirrhosis of the liver was made. This was his last visit to the hospital, and nothing further was known of his condition until May 17, when I was called to attend him. I then learned that during the interval between March 10 and May 13, no evident change in the patient's condition had taken place, though he had been subject to attacks of dizziness and dyspnœa, so that he desired to have the windows opened, and these attacks had always been accompanied by profuse sweating. He had on that day, March 13, answered the door bell several times, but on returning the last time, he said that he had come near falling, and laid himself on the sofa. He answered several questions put to him by his wife, and nothing further was thought about his condition until an hour later, when it was noticed that he failed to recognize a friend who had entered the room. All attempts to rouse him were in vain, and finally he was put to bed, where after a few hours he became brighter, and it was not until May 17, four days later, that I was sent for. I found the patient lying apparently comatose, though he could be aroused to answer questions, which he did slowly but intelligently. He moved all of his extremities promptly as requested, and continued to repeat the motion, as it were automatically, not even ceasing always when requested to do so. None the less there was distinct paresis. The patient recognized all visitors, and conversed with them intelligently as far as they noticed. It is certain that he recognized them sufficiently to greet them by name, and properly according to their relationship, but a few minutes after they had gone he did not know of their visit, and often asked why they had not called. Difficulty in swallowing, indistinctness of articulation, and incontinence of urine completed the manifest symptoms. When asked if he wished to urinate he would pass considerable quantities of urine at a time, though repeated suggestions failed to relieve the dribbling. There was marked constipation. The patient himself complained only of weakness.

I then called Dr. W. N. Bullard in consultation. The patient's condition was noted to be as above. Physical examination showed the patient to be pale and cachectic in appearance, temperature normal, pulse 80. There was a cataract in the right eye, and iridectomy had been performed on the left, so that both pupils were dilated. The left reacted to light. The reflexes were normal, and no anomaly of sensation could be detected beyond that due to mental obtuseness. Further examination revealed nothing pathological except the small liver. Though the cause of the existing condition was recognized as distinctly cerebral, the exact nature of the lesion could not be determined upon, though a hæmorrhage was considered to be the probable cause of the trouble.

From this time, May 19, until his death, the patient lay in bed in a semicomatose condition, replying to questions intelligently, in spite of some aphasia, which appeared to be ataxic in character, but when

not addressed or otherwise roused, apparently unconscious of his surroundings. There was no aphasia, properly so called, that is he always used the proper word when he spoke at all, although his speech was hesitating and indistinct. The paresis, which nowhere amounted to absolute paralysis, continued unabated. There were no convulsions and the patient gradually sank away, becoming constantly weaker and weaker, and died May 27, ten days after I first saw him.

Autopsy was made May 29, thirty-six hours after death. The body was of medium development, somewhat emaciated. The relations of the cranium to the head, and of the head to the face, were normal. The cranium alone was opened. The bone was normal in thickness, the dura, everywhere strongly adherent, could not be removed except with great difficulty. The longitudinal and transverse sinuses were empty. The pia mater was much injected, the vessels being dark and swollen. There was no fluid in the meshes of or under the pia which was neither adherent nor thickened. The brain was of normal size and consistency, its bloodvessels everywhere dilated and very prominent. They all contained numerous atheromatous patches, yellow, hard, and not contracting on section of the vessel. These patches occupied one-third to one-quarter of the whole extent of the larger arteries from the vertebral upwards. Between these hardened yellow patches the arteries were dark blue and dilated, though little or no blood was found in them. There was no fluid in the lateral ventricles. Puncta cruenta were very few and not well-marked. The choroid plexuses were dilated and enlarged. No signs of hæmorrhage or softening were found in the substance of the cerebrum, cerebellum, pons or medulla oblongata. A grayish body the size of a pea was found at the anterior portion of the falx, there adherent. A small white thrombus was found occluding the left vertebral artery and extending into the basilar, which it partly occluded.

MEDICAL PROGRESS.

Uterine Dyspepsia.—In connection with a case lately observed by himself, Jaffé, of Frankfort-on-Main, calls attention to the affection which Kisch has named *dyspepsia uterina*, meaning thereby a dyspeptic condition that has its origin and cause in a diseased condition of the female sexual organs. Although it is well known to medical men, that during the course of diseases of the female sexual organs there may arise various dyspeptic symptoms, as disordered digestion, eructations and constipation, there has been no clear conception of the significance of these symptoms.

His case was the following: Miss S., æt. 23 years, had been affected two years before coming under Jaffè's observation, with a suspicious apex catarrh. She now sought relief for various nervous complaints, and more especially for an obstinate want of appetite. She had no fever, the color was remarkably pale, the courses were regular, quite painful. Excepting some dulness over the right apex, pointing to the remains of the former trouble, examination of the patient revealed nothing abnormal. Steel and easily digested food was prescribed. Her condition became worse from week to week; the want of appetite increased to a positive dislike for all food; she complained of pyrosis, frequent eructations; now and then she vomited shortly after eating; her bowels moved but once in eight to ten days, and then only after all kinds of purgations. Jaffè diagnosticated a chronic gastro enteric catarrh, as the age of the patient pointed against cancer, and the symptoms against round ulcer.

All treatment by muriatic acid, Carlsbad salts, cocaine, nux vomica and opium being useless, and the eructations and the vomiting continuing to increase, the question, if this was not a case of nervous dyspepsia, came up for consideration. To determine this point the stomach-tube was introduced seven hours after a meal had been taken, according to Leube's directions. The stomach was found empty and free from acid, and hence an organic disease of the gastro mucous membrane could be excluded. The patient now for the first time admitted that she had been troubled for a long time back with pain and heaviness in the lower part of the abdomen, and that she had leucorrhœa, which had grown much worse of late. Hip baths and vaginal injections of carbolic acid solution were added to the previous line of treatment. No improvement followed; on the contrary, the gastric symptoms increased greatly, and vomiting became so severe that no food at all could be retained, so that the patient emaciated to the last possible degree. The case now presented much similarity to obstinate vomiting of pregnancy. She now submitted to a vaginal examination. This was performed with patient under chloroform, and disclosed an enlarged womb, in anteflexion, with virginal cervix, and thick cream-like pus pouring from the os. The ovaries seemed to be normal. The uterus was dilated, and the mucous membrane of the body and neck thoroughly scraped, and then washed out with a three per cent. carbolic acid solution by means of a Fritsch-Bozeman uterine catheter. There was no hæmorrhage, and but slight febrile reaction; paresis of the bladder, however, developed, and necessitated the use of the catheter for several weeks. After this operation the gastric symptoms and the vomiting disappeared as if by magic, appetite and digestion became normal, and the patient gained rapidly in flesh. But with the appearance of the menses there was a partial relapse of the local symptoms, and with them there again came on dyspeptic signs, though of a very mild degree, and without any vomiting. Irrigation of the uterine cavity with carbolic solution always brought relief. There can be no question that the above was a case of uterine dyspepsia, in which the dyspeptic symptoms originated in the diseased condition of the sexual organs. Kisch cites a number of cases in which gastric and digestive complaints of many years standing would yield to energetic gynecological treatment. His two most marked cases are the following:

Mrs. N., æt. 25, was sent to Muricubad for a gas-

tric trouble of four years standing; she has been married six years, and is sterile. Her appetite is good, but after every meal intense gastric pain sets in, with pyrosis and acid eructations; she is obstinately costive, and much troubled with gaseous distension. She has never vomited blood. She has lost flesh and feels depressed in spirits. Neither the lungs nor the digestive organs presented any cause for these violent symptoms. The uterus was found retro-flexed. Kisch replaced the womb, and fortunately it retained its position without a pessary. The digestion, symptoms and the vomiting were at once relieved. Shortly afterwards the woman became pregnant, and carried her child to full term. Since then she has given birth to three children, and has never had any relapse of the old trouble.

The second case showed similar symptoms. An examination disclosed chronic metritis and endometritis, retroflexion, and a small perimetritic exudation on the left side. After proper gynecological treatment had been instituted, all the gastro-intestinal symptoms, for which the patient had for years visited various springs, disappeared completely, and patient gained six pounds in weight during her six weeks stay.

B. Schultze, in speaking of the treatment of chronic endometritis, expresses himself as follows: "Only the practitioner who, in a number of cases of catarrhal disease of the uterus, has washed out the cavity of the womb, after previous dilatation, and has observed how, in consequence of this treatment, long-lasting digestive disorders, dyspepsia of many years standing, are wont to disappear, can form an idea to what evil symptoms, beside the local ones, stagnation of the catarrhal secretions in the uterine cavity may give rise."

What is uterine dyspepsia? By dyspepsia we mean no disease, but only a complexus of symptoms common to many diseases of the stomach, and expressive of an abnormally conducted digestion in the stomach, and such symptoms are a change in appetite, eructations, nausea, vomiting, constipation, oppression and fullness, etc. In uterine dyspepsia this complexus of symptoms arises from an abnormal irritation of the gastric nerves, and this irritation is reflected from the diseased sexual apparatus. The principal effect of the reflected irritation consists in an alteration of the secretion of the stomach, increased acid secretion, in a checking of peristaltic action of the intestines, and in an irritation of the centre of vomiting. Diseases of the womb that are attended with increased size of this organ, and malposition of the uterus, give rise to these symptoms, according to Kisch, chronic metritis, endometritis, myoma, large pelvic exudations, follicular and carcinomatous ulcers and ovarian tumors. Retroflexion is the most common cause. Diseases of the vagina, erosions and ulcers of the os, if of small extent, small peri- and parametritic exudations, do not give rise to dyspeptic symptoms. Jaffè next describes at length the nerve-paths by which reflex irritations are conveyed from the sexual organs to the stomach, to the intestines, and to the centre of vomiting.

Not many physiological data that could throw light on this affection, are known, though Kretschy found, while experimenting with a girl with gastric fistule, that during menstruation the stomach was never free from acid, a neutral reaction was never present, and he had to wait until the cessation of the menses before the cause he had previously found for the acid secretion was resumed. This observation was confirmed by Fleischer, who could demonstrate by the frequent introduction of the stomach tube a distinct slowing of digestion during menstruation.

In Jaffè's own case the dyspeptic symptoms also suffered during menstruation. Though these observations and experiments are incomplete, they seem to show a correlation between the functions of the stomach and the generative organs in woman.

The diagnosis of uterine dyspepsia must often be very difficult, for though digestive disturbances may be present during disease of the sexual organs, still a diagnosis of uterine dyspepsia may not be admissible, as an organic disease of the stomach may be, at the same time, present. Only when an organic disease of the stomach can be positively excluded, would we be justified in making the diagnosis. Frequently it will have to be made *ex juvantibus*. The prognosis of this affection is very uncertain, and depends entirely on the fundamental disease. A non-adherent retroflexion will give a good prognosis, and a carcinomatous infiltration of the womb, a very unfavorable one. The treatment also depends upon the nature of the affection of the generative organs. An energetic local treatment frequently yields an immediate success, as it did in the above case.

In what relation does the affection stand to the nervous dyspepsia of Leube? Clinically they do not differ. Leube finds the nature of nervous dyspepsia in a perverted action of the gastric nerves, and of the entire nervous system, on the processes of digestion. Hence it may originate in all manner of causes of a central and peripheral nature. In this sense *dyspepsia uterine* is a particular form of *nervous dyspepsia.—Memorabilien*, 1886, Hft. 4.

APOCYNUM CANNABINUM.—The apocynum cannabinum is a herbacious and perennial plant, belonging to the family of the apocynaceæ. The root contains tannin, resin, and two substances—apocynine and apocynum—having the same properties as digitalis. Dr. Rusch's attention was attracted to this plant by its valuable properties as a hydragogue in arresting serous effusion of the pleura and peritoneum. It is both tonic and diuretic, and is valuable in general anasarca. A decoction is made of 4 grams of the bark to 250 of water, and a dose of 30 grams is given every six hours.—*British Med. Jour.*, March 5, 1887.

TREATMENT OF BLENNORRHAGIA.—DR. AWSSITIDJISKI records forty cases treated as follows: For four or five days he prescribes a potion containing 5 grams of salicylate of soda in 180 of infusion of linseed. In case the sensation of ardor urinæ disappears, he orders injections of boric acid in two per cent. solution to the number of from 4 to 6 a day for 4 days, ending finally with an injection of bichloride, 1 to 6,000, until the cure is complete.—*União Medica*, October, 1886.

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY.

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE.....$5.00
SINGLE COPIES.....10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, APRIL 2, 1887.

THE CONDITIONS FOR THE ADMINISTRATION OF NITROGLYCERINE.

In a most interesting paper in the *St. Petersburger Medicinische Wochenschrift*, No. 1, 1887, TRUSSEWITSCH recommends that in prescribing nitroglycerine the terms angioneurosin or aneurosin be substituted for the name which is so objectionable in some cases, since these terms clearly indicate the class of diseases in which the drug has been found most serviceable—diseases in which the vaso motor disturbances constitute the most important substratum.

A deviation of the arterial lumen from the normal vascular tone is a condition *sine qua non* to a successful employment of the drug, the dilating effect of which extends to the arterioles and the capillaries. But while the primary effect of the vaso constrictor nerves is the main indication, another of equal importance is found in the ischæmia, which secondarily follows upon an unequal distribution of the blood either from determination to or dilatation of certain vascular territories. A tonic vaso motor spasm seems to be added to the merely mechanical change in the calibre of the dilated vessels. It would be difficult to explain in any other way the therapeutic action of the drug in certain forms of local congestions to internal organs; for by dilating the remaining somewhat contracted vessels, it draws the blood from the dilated parts, relieves the congestion, and may thus possibly abort inflammatory processes. When, therefore, an irregular distribution of the blood in the vessels is present in disease nitroglycerine is indicated. By suddenly dilating extensive vascular territories it charges with blood parts whose vessels have been in a contracted condition, and relieves other parts in which they have been unduly dilated; thus performing, so to speak, transfusion of blood into an anæmic part, and abstraction of blood from an engorged part. In this way may be explained the action of the drug in megrim and sea-sickness: the contracted cerebral arterioles are dilated, and more blood flows to the brain, being abstracted from the over-distended abdominal vessels. In this way also it relieves the heart-work when contracted peripheral vessels retard the circulation by causing increased arterial pressure. The symptoms, therefore, that point to the selection of nitroglycerine in the treatment of diseases, belong to the sphere of the vaso-motor nerves.

Now, what are these symptoms? The paroxysmal nature of the attacks is characteristic of many of the diseases for which nitroglycerine is useful, this paroxysmal character indicating to a certain extent the absence of organic lesions and the frequent recurrence of exciting causes. Angina pectoris, megrim and neuralgia represent this class of diseases for which the drug is suited. Sea sickness, certain forms of anæmia, fainting fits, palpitatio cordis, etc., are some of the acute angioneuroses for which it may be employed. But nitroglycerine is also used successfully in diseases of a well-marked chronic character, as in Bright's disease, flabby and fatty heart, apoplexy, in which, of course, the treatment must be continued for a long time. In all suitable cases we may expect benefit from it if symptoms of unequal distribution of the blood be present, which are usually shown by pallor, especially of the face, and attended by a weak pulse in a contracted, rigid, deeply-placed radial artery. Trussewitsch makes it a rule to avoid the use of the drug in cases of headache or neuralgia in persons whose faces show the signs of chronic engorgement of the superficial veins; and in asthma, even if it is paroxysmal in character, this remedy is useless if the patient's face be more or less reddened from emphysema. On the other hand, a pale skin during an attack of angina pectoris, megrim, vertigo, shock, toothache, and most forms of sea-sickness, furnishes the best prognosis toward recovery. Dr. O. T. Schultz, of Mt. Vernon, Ind., says that in full-blooded girls of phlegmatic temperament, whose menstrual function has not yet been established, who suffer from constant and long-continued headache of a dull kind, greatly increased by mental or bodily exertion, from vertigo, and whose pulse the least excitement runs up 30 to 40, an alternate flushing and paling of the face does not form a contraindication, for vertigo, headache, and cardiac irritability will yield promptly to the remedy.

But Trussewitsch's observations have taught him

that the equalizing effect of nitroglycerine on the circulation can be utilized in congestive conditions of internal organs; it is in these conditions that the remedy seems to act as a direct abstracter of blood from the vascular system of the congested organ. He considers these observations of especial importance, because we have nothing similar to them in medical literature, and because they raise the hope that in future it may be possible, by means of this agent, to check the progress of acute hyperæmia of an organ, in diseases of this kind, into inflammation, extravasation and other processes. In this way retrogression of acute pulmonary hyperæmia from inhalation of cold air or irritating substances—variously styled acute congestion, engorgement, pulmonary apoplexy—may take place; extravasation of blood into the brain after apoplexy from circulatory disturbances may be prevented; overfilling of parenchymatous organs—especially the kidneys—may be dissipated; violent symptoms of congestion to the heart or brain in climacteric or hæmorrhoidal cases may be lessened; and profuse menstruation may be controlled. It is evident that in this class of cases the congestion must not be a permanent condition, for attention has already been called to the fact that nitroglycerine does not exert any influence when the arterial tone has been permanently lowered by long-continued engorgement or passive hyperæmia. Trussewitsch remarks that in these cases of acute congestion he has found, coexistent with the congestion, a remarkably low and slow pulse—a condition which is generally recognized to be present in the non febrile period of acute pulmonary and renal hyperæmia. It is to be hoped that this new indication for the use of nitroglycerine will be confirmed by the further experience.

In the angioneurotic as well as in the congestive forms of disease, good results can be expected from nitroglycerine only if the vaso-motor system of nerves is normally developed, *i. e.*, with normal function of its presiding centre in the medulla and its terminal apparatus in the arterial walls. Before prescribing Trussewitsch examines the pulse, as he considers its character the best guide to the use of the drug and the size of the initial dose. His experience is that the more contracted the radial artery the more rapidly will it become dilated, and the less pronounced will be the secondary effects of the drug; the fuller the pulse with a tense artery the less will nitroglycerine act upon it; and the softer the artery with a weak pulse the greater will be the secondary effects, and the more readily will excessive general symptoms appear. For this reason he dispenses in cases of the first class only the normal dose—1 drop of a 1 per cent. solution, in those of the second two drops after a trial dose of 1 drop, while in those of the third class he begins with a subnormal dose, ¼ to ½ of a drop, so as to avoid the severe drug-symptoms. It is advisable to give women, children, and aged persons smaller doses, and he has made it a rule to give anæmic, weak, nervous, fatigued and frightened persons an initial dose of $\frac{1}{200}$, and to advance to the normal dose only after three to seven days. Organic heart disease is no contraindication. He has given it in cases of angina pectoris with insufficiency of the aortic valves, and dilated aorta, and with flabby, dilated heart without bad effect. Those addicted to the abuse of alcohol seem to suffer more severely from violent and long-lasting headache. In persons who seem not easily impressed by the drug, and to whom, on this account, large doses have been given, this violent headache may not make its appearance for several hours. Caution must be exercised in general atheromatosis of the arteries.

By his trial dose Trussewitsch attempts to find the capacity of the patient for the remedy, and it serves to acquaint the patient with the manner of taking it. In his opinion, the good action of a dose of nitroglycerine is in proportion to the subjective symptoms to which it gives rise. These subjective symptoms are cerebral congestion, dulness, moderate pain, and pulsation, and their onset is an indication that a favorable effect will follow the given dose. The objective sign that the drug will act favorably is a change in the pulse, consisting in an increased frequency, increased duration, and increased softness of the radial artery. If no cerebral symptoms are complained of, and if the pulse does not weaken and become excessively soft, the dose is increased to 2 drops of a 1 per cent. solution. Usually the treatment may be begun with a single drop, and the peculiar physiological effect is experienced even if the medicine be continued for several weeks. In a purely neurotic attack—the symptoms completely disappearing before and after the paroxysms—it is advisable to give 2 drops at once, or else to repeat 1-drop doses every five, fifteen or twenty minutes. To prevent a new attack and to cure the affection the dose is repeated three or four times a day, and an extra dose is given when the premonitory symptoms of the paroxysm are manifested. The fulness, oppression, and pulsation in the head disappear more rapidly if the patient remains seated in a chair, in a well-aired room, and avoids everything that could give rise to a flow of blood to the brain. When the physiological effects of a dose cease to appear, the

time has come when its good effect on the disease has also ceased, and the dose must be increased; only by a single drop, however. Now both objective and subjective drug-symptoms are again promptly manifested, and the disease symptoms again vanish, the patient in a short time learning what to look for, if it should do him good. In diseases of long duration, as in angina pectoris due to organic causes, in which nitroglycerine can only serve as a palliative, great care must be taken in increasing the original dose. It is better in such cases to give an extra drop only just before a paroxysm, and the smaller doses in the intervals, or else to stop the medicine entirely during the latter and only give a full dose before and during an attack. For patients who have become accustomed to nitroglycerine, the dose may be gradually raised even to 10 drops. Trussewitsch has found that if the use of the drug be interrupted for ten or fourteen days, on recommencing the treatment the original, smaller dose will again give rise to pronounced physiological symptoms with their coincident prompt controlling action on the paroxysms; and this peculiarity of the drug makes it unnecessary to unduly increase the dose simply on account of the patient's having become accustomed to the dose.

The best method of administering nitroglycerine, says Trussewitsch, is to drop the dose on the tongue, or to dissolve a chocolate tablet of nitroglycerine in the mouth, so as to bring the medicine into most intimate contact with the mucous membrane of the upper digestive tract. Other methods are unsatisfactory, and that of introducing it into the stomach diluted with water gives the poorest therapeutic results; as little water as possible should be given with it. He is certain that, if given by the stomach, an augmentation of the dose will be much sooner called for and far larger doses will be necessary; and he is not at all surprised that Murrell should have been compelled to rapidly advance to enormous doses in angina pectoris, and that Cantilena, after rapidly raising the dose to 40 drops, should have thrown the drug aside as useless. He can recall no cases in which in a beginner more than 2 or 3 drops, and in one habituated to the medicine more than 5 to 10 drops were necessary to relieve the paroxysm. Dr. Schultz reports that in a case lately under observation 1 drop of a 1 per cent. solution, given with a few drops of water and retained in the mouth, gave rise almost instantaneously to the usual drug-symptoms with violent lightning-like twitches of pain through the brain; while, when the dose was given with water and swallowed, the sharp twitches of pain were absent, and the fulness and throbbing in the head were much milder and appeared much later. When he finds that nitroglycerine does its work, dilates the vessels, and reduces their tension and the blood-pressure in chronic diseases, Trussewitsch is accustomed to gradually advance to the maximum dose, say 10 doses, and then as gradually go back to the original dose. He then interrupts the use of the drug, or drops it altogether. This plan has been found of especial advantage in Bright's disease. He sometimes find it advisable in chronic diseases to combine with the nitroglycerine treatment the use of other drugs, as digitalis in weak, irregular heart-action, cocaine or morphine in neuralgia, and amyl nitrite in violent attacks of angina pectoris, when it is not desirable to augment the dose of the leading remedy. It is of course very necessary to combat any constipation present, and for this purpose uses an aloes and podophyllin pill, or an emulsion of castor-oil with glycerine. A strict dietetic regime is to be insisted on in the treatment of diseases with nitroglycerine; bodily and mental quiet is necessary; change of temperature, excessive exercise, long-continued brain work, mental worry and care must be avoided.

Care must be taken that the preparation of the drug used is a reliable one. The dose should be applied to the tongue by means of a pipette that drops uniformly. The preparation should be kept in a glass-stoppered vial. Many patients always carry a vial of nitroglycerine and a pipette with them, so as to be able to take their dose at a moment's warning. There is no danger of carrying a 1 per cent. or even a 10 per cent. solution, as Trussewitsch has proved by numerous experiments. The preparation does not deteriorate with time, for he has carried the same supply around with him for over four years without noticing any change.

THE DUTY ON FOREIGN BOOKS.

Those members of the medical profession who attempt to keep themselves posted in the advances made outside of our own country, and who are able to read some of the European languages, fully appreciate the injustice (apparent certainly, if not real) of the present high duty on all foreign works. As medical men we are not interested particularly in knowing how such duty protects any home interest; though as a matter of fact the keeping of books in foreign languages out of the country can protect no home interest. Further than this, we must regard at least 95 per cent. of such books purchased by medical men in this country as necessities, not as luxuries. These books are necessities in the same way that agricultural implements are necessities to the

farmer; but all good agricultural implements may be made in this country, while the works of which we speak cannot be made here.

Suppose, for example, a medical man in this country wishes to buy a English, French or German work which costs $1; he must pay 25 cents duty, or at this rate, on a book which costs $20 he must pay $5 duty. How many reading, studying medical men can afford to pay one-fourth more for an article than it is worth? This tax falls exclusively on the reading, studying members of the profession; it does not affect those who do not attempt to make progress after leaving the medical colleges; it does not affect the drones in the profession. We think it will be agreed that such works are as much a necessity for the State at large as for the profession, since it is now well recognized that the highest aim of the profession is preventive medicine. Would it not be well for the American Medical Association to take some action in regard to this matter at its next meeting, and memorialize the General Government, setting forth the injustice of this tax.

COLLECTIVE INVESTIGATION OF DISEASE.

Only a very limited number of the blanks prepared and distributed to members of the profession in this country by the American members of the International Committee for Collective Investigation, organized at Copenhagen, 1884, have been returned as requested, on or before January 1, 1887. The blanks related to rickets, acute rheumatism, chorea, cancer, and urinary calculus. As the time is near when the several members of the Committee are expected to make their returns to the Secretary-General of the International Committee, it is very much desired that all who have received copies of the blanks alluded to and have filled any of them, would return the same without further delay to Dr. N. S. Davis, 65 Randolph Street, Chicago, Ill.

CHOLERA IN SOUTH AMERICA.—From the Weekly Abstract of Sanitary Reports, from the office of the Supervising Surgeon-General of Marine Hospital Service, dated March 24, we learn that the latest dates from Buenos Ayres, Feb. 5, represent the prevalence of the cholera as decidedly diminishing throughout the Argentine Republic, with a prospect of its early disappearance from that country. But in Santiago and the departments of Aconcagua, Andes and Quillota of Chili the disease continues active and fatal, particularly among the poorer classes of the people.

DIED, at Mt. Vernon, Ohio, March 22, 1887, JOHN W. RUSSELL, M.D., one of the oldest and most highly respected physicians of that part of the State. He had been an honored member of the American Medical Association since 1860, and was one of those who crossed the mountains to attend the annual meeting of the Association in San Francisco in 1871. He was born in Caanan, Litchfield Co., Conn., June 28, 1804, acquired a good general education, commenced the study of medicine in 1823, and graduated in the Jefferson Medical Collge in 1827.

DIED, at Atlanta, Ill., March 25, 1887, WILLIAM T. KIRK, M.D., from disease of the heart. Dr. Kirk was well known as an active and honorable member of the profession, and was President of the Illinois State Medical Society at the time of his death. He had been a member of the American Medical Association since 1882; and commanded the respect and esteem of a large circle of friends.

SIR B. WALTER FOSTER, of Birmingham, Eng., President of the Council of the British Medical Association, has been recently elected to the House of Commons for the Western division of Derbyshire. Dr. Foster has previously done good service in Parliament, and we congratulate him on again being honored with a seat in that most important legislative body.

THE death of ARTHUR FARRE, M.D., F.R.S., of London, Eng., a celebrated surgeon and writer, and physician extraordinary to the Queen, has just been announced as having taken place in the seventy-seventh year of his age.

THE SANITARY RECORD, London, Eng., for Dec. 15, 1886, contained two important communications concerning the health of London, alluded to by our regular London correspondent in this journal for Feb. 26, 1887.

PROFESSOR BORODIN, of St. Petersburg, known as a warm supporter of female medical students in Russia, died suddenly of heart disease in February. He was an eminent chemist, and worked out a valuable process for the estimation of nitrogen.

PROFESSOR HIRSCHBERG, of the Berlin University, has accepted the Vice-Presidency of the Ophthalmological Section of the Ninth International Medical Congress, to be held in September at Washington.

SOCIETY PROCEEDINGS.

CHICAGO GYNÆCOLOGICAL SOCIETY.

Regular Meeting, Friday, January 21, 1887.

THE PRESIDENT, CHAS. WARRINGTON EARLE, M.D., IN THE CHAIR.

W. W. JAGGARD, M.D., EDITOR.

DR. CHARLES T. PARKES reported a case of

INTERSTITIAL PREGNANCY, WITH REMOVAL OF THE PRODUCT OF CONCEPTION THROUGH THE UTERINE CAVITY,

with the exhibition of the specimen.

The specimen, which I exhibit to-night, comes from a case, which has been of extreme interest to me, and is, I think, the remains of a conception, which was certainly outside of the uterine cavity, and which I succeeded finally in delivering through the womb. It was taken from a lady, 33 years of age, who, seven years ago, was delivered of a child at full term. The child is now living. A year after that, she was taken with hæmorrhage and had quite a severe bleeding, every month or second month, for two years. Some time after her pregnancy she was operated upon for laceration of the cervix, but the operation had little effect upon the hæmorrhage. Two years ago she again became pregnant, and was delivered at the proper time. This child is still living. The lady came under my charge last September for hæmorrhage from the uterus. On examination, I found a globular mass in the lower portion of the abdomen, as large as two fists, very hard and tense. When I felt it through the abdominal walls, my impression was that it was a fibroid growth. Upon digital examination, I found the cervix dilated sufficiently to admit the finger very readily, which went over the surface of a smooth mass in the uterine cavity. This led me to think that it was a fibroid tumor with a broad base, probably a submucous tumor, which gave rise to the hæmorrhage. On that supposition I placed her on the ergot treatment and kept it up for a week, 20 drops of the fluid extract every six hours. This gave rise to such severe attacks of pain that the patient could not bear the treatment any longer, but it had the effect of diminishing the flow of blood and increasing the dilatation of the cervix. I took pity upon her on account of the pain and gave two hypodermic injections of morphine, when the pain ceased, the cervix began to contract again and soon reached its normal size, and the patient recovered from the acuteness of the disturbance; but the hæmorrhage still continued, accompanied with a flow of muco-pus. I attended her from the 16th of September until the 14th of October; as she was getting along pretty well, I supposed the action of the ergot would gradually force this mass down so that it could be removed.

My visits ceased and I heard nothing more from the patient, except an occasional report that she was getting along in the same way, until the 10th of December, when her husband came into my office and showed me a little piece of bone, or a piece of hard substance that looked like bone, which he said his wife had picked off the napkin. It had the appearance of fetal cranial bone. He asked me what it meant, and I told him I could not say but would see his wife. On inquiry, I found that the flow of blood had ceased, but the flow of pus had increased, and occasionally there was extruded a piece of this bony substance. On digital examination, I discovered the os and cervix filled with particles of this bony substance, and after removing them I found it impossible to introduce my finger into the cervix. The external tumor was reduced considerably in size, and was low down in the pelvis, and could be felt projecting through the anterior vaginal wall. I then decided to dilate the cervix. I introduced as many tupelo tents as I could get into the cervix—at first but two of fair size—to their full length, and allowed them to remain there over night, when I removed them and introduced four more. That evening I removed them, and the cervix was dilated so that I could easily introduce my finger. As I had examined the uterus with the sound at my first visit, and it went around this mass to its full length, I supposed I had nothing but a fibroid to deal with. When I had dilated the cervix with these tupelo tents, I found I could not get at the mass of the growth, my finger going into the cavity of the uterus. At the distance of one joint and a half inside the cervix, I found a little opening, and projecting through this opening—about as large as the end of a pencil—were some of these particles of bone. Then the query arose, how was I to get into this cavity, and what was it? a double uterus, with multiple pregnancy at the last conception—one delivered and the other retained? I was at a loss to know what it was. (But finally concluded it to be an intra-mural pregnancy.) I had the particles examined under the microscope, and they showed the structure of a fetal bone. Then I thought of using the tents, to increase the dilatation, but was troubled with the fear that I should have a severe scepticemia come on as soon as this outside cavity was opened to air. But I was convinced that unless I tried to do something, the patient would pass out of my hands; so I decided to keep on with dilatation. On the 20th of December, I began introducing the tents, and within two or three days after their removal, the cervix was again contracted so that it would not admit the finger. I introduced the tents again, and met the same difficulty in exposing the mass. The thought struck me that if I could not get the large body out of the small opening, I could diminish the size of the mass; so I introduced small forceps into this opening, and took it away piecemeal. All this time I had the entire uterus under my command, because it was an easy matter to bring the cervix down to the vulvar orifice. On the 24th I introduced tents and dilated it, so that I could introduce two fingers very readily, and finally got one of my fingers into the opening in which this body (indicating the specimen) was found. I then began to separate it and pull it away, getting hold of it with strong forceps. Sometimes I succeeded in bringing away a large mass of flesh, which

looked exactly like that from a macerated fœtus, the skin macerated and parchment like. This was continued up to the 30th. Passing over the New Year, and allowing the patient to rest without interference, on January 9, I introduced four tupelo tents, a little longer than the ordinary, and fortunately succeeded in getting one or two into the opening in which the body was found; so when I removed them that evening, I was enabled to bring away the entire mass and pass the finger into the cavity afterwards. It was very irregular, as though the uterine tissues had been forced into the irregularities of the foreign body. Since that time the patient has improved, the bleeding has ceased, the uterus has diminished in size, and she is up and about the house. I have had all parts of this specimen examined under the microscope. The fleshy mass shows connective tissue, muscular fibres, blood-vessels and hairs. The osseous material shows all the characteristics of fœtal bone.

THE PRESIDENT, asked if there was a history that would lead one to suppose that at any time during her invalidism there was a pregnancy, or a pelvic hematocele, or anything of that kind?

DR. PARKES said, that at the time of her last pregnancy, she was very large and yet was delivered of a child that weighed but six pounds. Her abdomen was very large for some time after the delivery of this child. Again, there is a history several years back, of a period when menstruation ceased, and she supposed she was pregnant, but nothing came of it.

DR. W. W. JAGGARD said that the interesting specimen presented by Dr. Parkes was a typical lithopædion—a calcareous capsule, containing the fœtal structures infiltrated with lime salts. He thought the diagnosis of interstitial pregnancy highly probable. It was impossible to make a positive diagnosis without a post-mortem examination of the maternal organs. Carl Braun (*Lehrb. d. g. Gynäk*, 1881, p. 128) was responsible for the statement that the formation of a lithopædion occurred only in case of extra uterine pregnancy. Spiegelberg (*Lehrb. d. Geburtshülfe*, 1882, p. 342) however, indicates that this proposition is too general. The formation of a *uterine lithopædion* occurs infrequently in the human female, but is not unusual in ewes. Kœberlé (*Gaz. Hebd.*, No. 34, 1866) extracted by abdominal section a lithopædion from the rudimentary horn of a *uterus bicornis*. The formation of a lithopædion, therefore, was not a reliable sign in the differential diagnosis between uterine and extra-uterine pregnancy.

DR. JOHN BARTLETT read a paper on

DYSTOCIA; A CASE OF MALPOSITION OF CORD.

Recently I was requested to assist a younger physician in a case of midwifery. Dr. H. had been called some hours before my coming. He found a healthy, well-built woman in labor with her eighth child, hitherto she had had no difficulty in her confinements. She had been in labor some hours, and, although the pains were very strong, the os fully dilated, and the head presenting, no progress had been made. A midwife had been in attendance. The doctor attempted to use Elliot's forceps, but, because of the high and abnormal position of the head above the pelvic brim, he had desisted from his purpose. Upon examination, I found the os widely dilated, the crown of the head presenting. By introducing the hand into the vagina, my fingers directed toward the left sacro-iliac synchondrosis, encountered and passed slightly beyond an extremity of the head ovoid which I supposed to be the occipital protuberance, but near it was so distinct a fontanelle as to lead me to examine the opposite extremity of the head. Passing the hand deeply behind the left foramen ovale and well above the pubes, the fingers embraced the occiput; sweeping well backward again over the side of the head they traversed the temporal region till the ear was reached and carefully outlined. Still further backward the fingers passed over the frontal eminences which had at first been mistaken for the occipital protuberance. The head was floating above the pelvic brim; the frontal region sinking somewhat below the plane of the superior strait. The crown of the head rested gently upon the pubes, while the occiput rested so far forward over the pubic bones as to be distinctly appreciable to sight and touch from without. Having determined the position of the head, I proceeded to inquire the cause of its detention; for it did not impinge with force upon any portion of the circumference of the brim. Passing the fingers along the side of the head I felt for the cord around the neck. A coil of cord was immediately encountered, and pressing a little farther upward a second, third and fourth coil were detected. I felt authorized to announce to Dr. H., as the cause of the dystocia, the suspension of the head above the brim by the cord shortened by four coils about the neck. The fingers were passed about the occiput and it was pressed downward and backward, throwing the forehead backward and upward above the brim and bringing the occiput slightly into the pelvis, the pains meanwhile having a decided effect in assisting the manœuvre. I now intended to seize the occiput with the vectis, and so deliver. Upon trial with the fingers, however, I appreciated that, as the occiput had descended into the pelvis, the forehead had risen above it, so that the power of the vectis as a tractor would not be available, seeing that the forehead, the opposite end of the lever I proposed to move, was not fixed but floating, the fœtus yet resting with the equators of the head well above the brim. As a lever to keep the occiput in proper relation to the inlet, the "Roonhuysen" would have served admirably; but in order to make available traction upon the head it would be necessary to lay hold of it with the forceps. Accordingly, with very little trouble, though locking was effected within the vagina, the head was seized with a well-curved Simpson's forceps, and readily brought down. The expectation was, as soon as the head was delivered, to place quickly two clamp forceps on the cord and cut it between these, in order to escape the embarrassment which the several coils about the neck might occasion. The first loop, however, was easily drawn over the head, the other coils were then readily released. The child which weighed eleven pounds

breathed at once, seeming but little affected by the unnatural position of the funis. The length of the cord was forty-six inches.

In connection with this case, I propose to make some comments upon the mode of determining the position of the head in labor. From time immemorial, it has been the custom of teachers to describe with particularity how the position of the head may be determined by the tips of the fingers by means of the sutures and fontanelles. Whatever skill or tact others may be endowed with, or may have acquired in such methods, for myself I wish emphatically to declare that such examinations are often entirely insufficient to furnish me with the desired formation; and that now, after years of careful observation, I am not unfrequently at a loss to determine the position of the head after the usual examination *per vaginam*, and that I am occasionally led into an error in this regard only to be dissipated by the birth of the head. Nor am I alone in this want of capacity; a number of experienced obstetricians, with whom I have conversed on this subject, have expressed like uncertainty in determining the position of the head by the means mentioned.

How, in cases requiring a knowledge of the head's position, is such information to be obtained? I know no better way of answering this question than by making reference to the practice of Smellie. Please note the thorough methods by which he satisfied himself of the size or position of the head in the several cases here cited. "I knew the child was small because I passed my finger all around the head." And, "I perceived that the head was not large, because I could easily introduce my finger all around the lower part of it." Desiring to ascertain the position he says, "I scooped up the head above the brim of the pelvis, and as I slipped my hand flattened between the sacrum and the child's head, I felt with my fingers on the back part of the neck" (determining the position of the occiput). And again, "I turned the back of my hand down towards the sacrum and raised or scooped the head gently to the upper part of the pelvis; and now with my fingers I felt the posterior part of the neck, and distinguished that the pelvis was not distorted. Thus informed, I introduced the blade of the forceps, etc. In reference to another case he says, "Being foiled in delivering the head, which was not large, after having properly applied the forceps I disengaged the instrument, and raising the head again (out of the pelvis) and found the difficulty was owing to the left shoulder being over the pubes. I got hold of the arm, brought it down, and again fixed the forceps and delivered, pulling gently at the hand." From these extracts it will be seen that Dr. Smellie did not content himself with vaguely touching such portions of the presenting part as might be reached by the introduction of one or two fingers, but that he introduced deeply the half-hand, or the whole hand, and passed the fingers into every available space; not hesitating, when necessary and practicable to lift the head above the brim that he might get his fingers about its salient points as the ear, the face, the back of the neck. It is noteworthy that it is only when circumstances prevent the head being thus "traced," that Smellie recommends that "the observation" be taken from the fontanelles and sutures. In the case which is the basis of this paper, the vaginal examination was made after Smellie's method. The steps of the procedure have been given in detail with the purpose of illustrating his teachings.

Dr. Philip Adolphus said: The diagnosis of the position of the child in head presentations by means of sutures and fontanelles is not as difficult to the physician, who has been in attendance during a case of labor as has been stated this evening. The gradual descent of the head into the pelvis will permit the recognition of the landmarks by *repeated* examination with the finger. In diagnostic obstetric investigations, palpation of the abdomen, the examination of the child's head and the pelvis of the mother by bi-manual palpation, should be conducted on the same principles as in gynecological cases. An empty bladder is also essential to a successful diagnosis. Such an examination will insure the recognition of the position of the child's head, and other necessary information. The consulting physician, who encounters a tender abdomen, tumified soft parts and a swelled scalp in an exhausted patient, has a far more difficult task. The same rules, together with the introduction of the hand as far up as is required, under anæsthesia, will give him the necessary information.

A refinement of diagnosis is not absolutely essential. Many cases of labor are completed, in which the diagnosis of the position of the head has not been ascertained by its sutures and fontanelles. Moreover, cases which require delivery by forceps are frequently skilfully handled when the operator has not been enabled to ascertain the position of the head. We explain this by stating that the mechanical adaptation of the child's head to the bones of the pelvis is perfect; sooner or later the child's head, if *not disproportionate in size to the pelvis*, will accommodate itself to its configuration, provided other obstacles in its path have been removed by the attendant. We state, also, that the position of the head does not determine the position of the blades of the forceps, but the position of the blades is always determined by the anatomy of the mother. Therefore, the forceps should be applied along the sides of the pelvis, and its pelvic cures should correspond to the curved axis of the pelvis. Its introduction is governed by the direction of the obstetric canal, the globular head of the child, and the cranial and pelvic curves of the instrument. The direction of the obstetric canal in a woman in labor is not the osseous pelvis merely; but the pelvis covered with soft parts, whose terminal outlet is not at the point of the coccyx, but at the anterior commissure of a greatly distended perineum, a distance of ten to twelve inches during labor. The blade of a long doubled curved forceps—having both the cephalic and the pelvic curves—is guided into the pelvis by the fingers and insinuates itself between the head and the soft parts of the mother. To facilitate the introduction of the second blade the first blade is

gently elevated and rotated as much in a lateral direction as possible. The same manipulation is repeated with the second blade. In many cases the elevation of the blades and their gradual rotations for the purpose of locking them, adjust the blades of the forceps to the head of the fœtus, as they have already adjusted themselves to the mother's pelvis; and now traction, some compression, and slight leverage (if necessary) complete the delivery of the child, *which will rotate spontaneonsly within its blades* during traction, owing to the anterior and posterior planes on either side of the cavity, and the resistance of the floor of the pelvis.

It is best that the exact position of the head should be known, but such knowledge is not essential to its safe extraction; on the contrary, it is not correct to apply the forceps to the sides of the fœtal head when its position is oblique or transverse, for if its pelvic curves are twisted, injury must be inflicted on the mother.

DR. W. W. JAGGARD wished to make one or two criticisms. The diagnosis of dystocia, by reason of a short cord, is not adequately established by the clinical history of the case. The ease with which the vertex engaged, after manipulation, and descended, after application of the forceps, the absolute length of the cord, forty-six inches—even with four loose coils around the neck, not relatively short—the condition of the child when born, these are facts which do not indicate that the length of the cord constituted a mechanical hindrance to the progress of labor. The author has quoted Spiegelberg, who is of the opinion that shortness of the cord constitutes a mechanical hindrance only where the presenting part reaches the lower portion of the parturient canal. The only method of determining with certainty, in the concrete case, that shortness of the cord is acting as a mechanical obstacle, consists in the introduction of the fingers, direct contact with the cord, and the detection of the abnormal tension. If the case related by Bartlett was one of dystocia, and if the "occiput projected so far forward over the pubic bones as to be distinctly appreciable to sight and touch from without," does it not seem a plausible hypothesis that the child was presenting slightly obliquely, and that the operator performed cephalic version? "The fingers were passed about the occiput and it was pressed downward and backward, throwing the forehead backward and upward above the brim, and bringing the occiput slightly into the pelvis, the pains meanwhile having a decided effect in assisting the manœuvre."

In treating of obstetrical diagnosis, in general, Dr. Bartlett does not mention the signs derived from inspection, auscultation, and particularly *abdominal palpation.* I am induced to call attention to this topic for the reason that, notwithstanding the writings of Kucher, Mundé, Richardson, the recognition of the value of abdominal palpation in obstetrical diagnosis in the best recent text books, and the translation of Pinard's Treatise, by Dr. L. E. Neal, of Baltimore, still many practitioners affect to disregard the paramount importance of the method. Litzmann (1865), Halbertsma (1870), Winckel (1878), Credé (*Gesunde und kranke Wöchnerinnen*, Leipsig, 1886, p. 80. *et seq.*, in order to prevent the infection of parturient women in their respective lying-in hospitals, having omitted all examinations *per vaginam* for months at a time, with most gratifying results. Under these conditions, external examinations has proved perfectly adequate in the diagnosis of presentation and position.

I confess to a feeling of decided surprise upon hearing that a medical man, with the average degree of tactile sensibility and even moderate experience, should necessarily have difficulty in the diagnosis of position, by indagation, in normal, vertex presentations, after engagement, before the formation of the *caput succedaneum*—the *os externum* being dilated or dilatable, the bags of water, intact or ruptured. I am under the impression that failure to make an accurate diagnosis, by examination *per vaginam*, under the conditions specified, is due in very many cases to inattention. It is an obstetrical maxim of importance that both fontanelles and their sutures should be felt before making a diagnosis, when vaginal touch is exclusively employed. When an extensive *caput succedaneum* has formed, or ossification of the fœtal skull is advanced, or in case of subnormal tactile sensibility on the part of the accoucheur, no absolute contra-indication to the introduction of the half-hand exists. In forceps cases, a correct diagnosis of the position of the vertex must be made, since that instrument ought to be applied first with reference to the pelvic walls, and then adapted to the child's head, before the exercise of its most important—and as I believe, exclusive—function of traction.

DR. EDWARD WARREN SAWYER: I wish to speak of an interesting experience. A gentleman who had carefully translated the book alluded to called me in consultation to assist him. He had, by means of bimanual palpation, diagnosticated a presentation of the vertex, but on my examination I found the buttocks were presenting. I think in most cases abdominal palpation is of no service whatever to the majority of practitioners. I have experienced the same difficulty that Bartlett has so graphically described in recognizing the position of the head by the introduction of the finger into the vagina. And after a long practice, so uncertain am I concerning the position that I never think of applying forceps until I have introduced enough of my hand to recognize some part of the face or head, in order to determine the exact position of the head.

DR. J. SUYDAM KNOX said: In regard to making an exact diagnosis of vertex positions, I must often confess failure if I rely only on digital touch. I have no doubt if the practitioner is called early to a case of labor before the uterus has become contracted, and the bag of waters has been ruptured, that it is possible by abdominal palpation to make out the position of the fœtus. When, however, labor has gone on for several hours the uterus becomes irritable, contraction and retraction taken place, and the liquor amnii to some extent discharged, I am satisfied that it is often impossible to make out a diagnosis of the position of the fœtus by digital

examination. Even if you can determine that the vertex is presenting, you cannot then make out the position exactly. I have no doubt that Dr. Jaggard is correct about those large obstetrical hospitals in Europe. The diagnosis is made because the patient is under observation from the time labor begins. But the busy practitioner is called after labor has progressed some hours, and the uterus is so irritable that as soon as he begins to make any abdominal examination it contracts, and it is impossible easily to make a diagnosis. I do not introduce the hand into the vagina in many cases, but when the labor is protracted, and I think the use of forceps necessary, and I cannot make out the exact position of the head, I give the patient an anæsthetic, and introduce the hand sufficiently to find out how the head lies. I cannot see how sepsis can occur by the introduction of that portion of the hand necessary to make a diagnosis, and I think the diagnosis should be made before instruments are applied. I have several times tried the oblique introduction of the long forceps, but doubt the wisdom of introducing them obliquely without reference to the shape of the mother's pelvis and attempting traction. It is much better to apply the forceps to bring down the head, with reference only to the maternal passages, and when the head has been brought through the superior strait, to unlock the forceps and allow rotation before effecting delivery. At times it is better to remove the forceps entirely, and to re-apply them after rotation has occurred.

Dr. De Laskie Miller was much interested in the paper. It is true that there were many statements that seemed strange. The paper was on the treatment of complications resulting from short cord, and the illustration was a case in which the cord was forty-seven inches long with only four coils around the neck. This should not, it seems to me, be a cause of dystocia; but admitting that it was, we come to cases of actually short cord causing dystocia. Take a cord that measures only four inches in length, or a case of labor which has occurred in which there is no cord, of course there must be a placenta, and the fœtus is attached through this directly to the wall of the uterus. In such a case how can delivery take place without applying traction force sufficient to sever the placenta? Physiologically the contraction of the uterus, especially after dilation is completed, is attended with a muscular retraction of the fibers of the body and fundus, which diminishes the cavity of the uterus and has the effect of severing its relation with the placenta. It is therefore possible for the placenta to be severed from its attachment to the uterus, by this retraction, and moreover there can be no injury to the uterus from the short cord if the contractions are normal, for while the organ is contracted the relation between the attachment of the cord and the uterus, or the placenta and its attachment to the fœtus, is not extended, rather shortened, so that the advance of the child can take place and delivery result.

A case is recalled which occurred in my own practice, of a primipara who was perfectly healthy, with nothing abnormal until about the time labor commenced. When I saw the patient in the first stage of labor, she remarked that she had felt no movement of the child for a considerable time, but this produced no impression on my mind, for it is a common thing for patients to say, and I paid no attention to it. The labor proceeded, and as the head was expelled from the vulva, I did as I always do, pass the finger instantly to the neck with the view of searching for the cord, and if it is found there liberate it. I found two or three coils of the cord around the neck, and they were so tightly drawn that it was impossible to disengage them. In order to deliver the child readily, I severed the cord. I noticed there was no circulation, and the child was still-born, past all possibility of resuscitation, and it had been dead a long time, for I found a knot in the cord drawn so tightly that the circulation was entirely cut off. In addition to the coils around the neck the cord passed over the shoulder, under the opposite arm, around the body and under the knee, possibly there were other coils. It appeared very much like the statue we see of Laócoön. I infer that the movements of fœtus at the time labor commenced or shortly before had tightened the cord, causing its death. This is the only case I have met in my practice in which I could satisfactorily trace the death to the closing of the knot. In regard to diagnosis of position, I was not aware that it is so difficult to make the diagnosis of position. I believe the practitioner should make out a diagnosis by abdominal palpation, which can be done with great facility if he is accustomed to the practice; but I also believe that the diagnosis can be made with one fontanelle and the sutures. We can certainly discriminate between the anterior and posterior fontanelles.

Dr. Bartlett said: A fellow has expressed surprise that as a means of diagnosis I have not made reference to abdominal palpation. I purposely limited my remarks to the ordinary methods of vaginal examination. I may, however, give it as my opinion that the method of determining the position of the head by abdominal palpation will probably prove available to those only who are capable of diagnosing head positions by the ordinary examinations per vaginam.

Drs. Jaggard and Miller have called in question the assigned cause of dystocia. To them it does not seem probable that the shortened cord was the cause of delay. Their objections are well taken. In this case there are two facts which give rise to the question whether the cause of the dystocia was really the shortening of the cord, the one in itself offering at first glance a sufficient cause for delayed labor, viz., that the head was projecting decidedly forward over the pubic bones; the other seeming to guarantee freedom from restraining tension on the part of the cord, namely, its unusual length; so that after delivery of the head the funis, though shortened, was not too tense to admit of its coils being released in the usual way. It must be considered, in reference to the abnormal position of the head at the superior strait, that while its attitude presented an impediment to the descent of the occiput, it invited a facile descent of the forehead; and yet this descent did not occur.

Besides, the head could be swayed to and fro in the median plane of the occipito frontal diameter so easily and freely as to give the impression that it swung on a pivot at the neck. In fact, it was this sensation imparted to the hand that suggested the probable suspension of the child by the cord; and this suggestion was strengthened by the apparent absence of any natural tendency of the head to settle into the excavation, either in the first instance as a brow and face presentation, or subsequently, as a right occipito-anterior position.

In regard to absence of great tension of the cord after the birth of the head, it is to be considered that without calling in question the possible detachment of the after-birth, surging of the coils about the neck, etc., the well-known mechanical principles by which the attached placenta in such cases in some measure keeps pace, so to speak, with the descending head, so clearly described by Dr. Miller just now, may themselves offer an answer to the objection that the cord was not found more tense after the head was delivered. No argument, however, can place the case certainly within the category of those which dystocia is due to shortening of the cord. It will be perceived that I have regarded the case as interesting rather than because of the unusual diagnosis of the malposition of the funis than as one in which this abnormity produced dystocia; and that I have availed myself of the free exploration of the presenting part by which the diagnosis was made an opportunity to present what I regard as the more important part of this paper. I refer to my views as to the insufficiency of ordinary vaginal examinations as means of determining presentations and positions in labor. Upon the discovery of the four coils of cord about the neck, in association with other circumstances and conditions mentioned, I conceived the circling of the funis to be the cause of the dystocia, and conducted the delivery in accordance with that idea.

Criticisms on the plan adopted should be made in this case, as in others, from the ante-partum standpoint of information. They should not be based, for instance, upon the knowledge that the cord was of very unusual length. This surplus in the cord's length threw a new and unexpected light upon the case, casting difficulties, before prominent in the foreground, into shade, and causing possibilities not before visible distinctly to appear. In this new light an opinion might be formed that the case left to nature would have terminated well, and that all interference was unnecessary. And yet I incline to the opinion that the ante-partum view of the case through the dark glass of the clinical obstetrician was the correct one.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

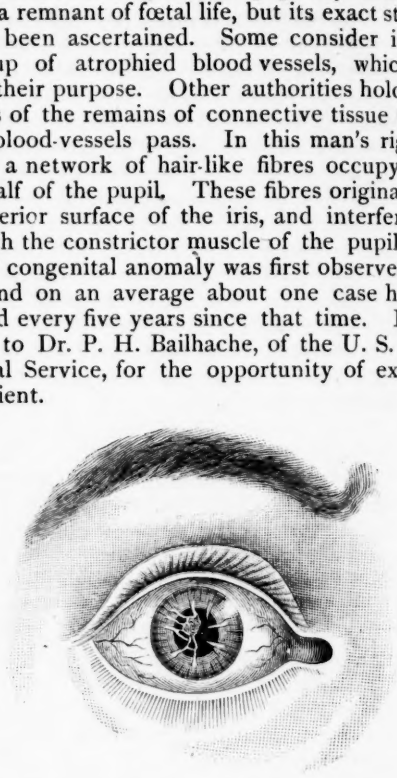
Stated Meeting, February 23, 1887.

THE PRESIDENT, J. SOLIS-COHEN, M.D., IN THE CHAIR.

DR. CHARLES S. TURNBULL exhibited a patient presenting a

PERSISTENT PUPILLARY MEMBRANE.

I have brought before you to night a case of unusual interest to ophthalmologists and to medical men in general. The patient has in his right eye what is known as a "persistent pupillary membrane." This is a remnant of fœtal life, but its exact structure has not been ascertained. Some consider it to be made up of atrophied blood vessels, which have served their purpose. Other authorities hold that it consists of the remains of connective tissue through which blood-vessels pass. In this man's right eye there is a network of hair-like fibres occupying the outer half of the pupil. These fibres originate from the anterior surface of the iris, and interfere in no way with the constrictor muscle of the pupil. This form of congenital anomaly was first observed about 1735, and on an average about one case has been reported every five years since that time. I am indebted to Dr. P. H. Bailhache, of the U. S. Marine Hospital Service, for the opportunity of exhibiting this patient.



DR. E. JACKSON said: This case is notable for the clearness with which it shows the relation between the membrane and the iris. In all the cases I have seen heretofore, as in this, the pupillary membrane has seemed to arise from the anterior surface of the iris; but in no other instance has the connection been so obvious, the membrane here appearing to be simply an extension of the anterior layer of the iris; and similar to it in structure.

DR. TURNBULL said that the point referred to by Dr. Jackson is well illustrated in this case, and it settles the disputed question as regards the origin of these fibres. It is distinctly seen that the sphincter muscle is in no way involved. The membrane has no connection with the muscle nor with the inner pupillary margin.

Stated Meeting, March 9, 1887.

THE PRESIDENT IN THE CHAIR.

DR. J. SOLIS-COHEN read a paper on

ADMINISTRATION OF GASEOUS ENEMATA.

He desired to exhibit Morel's apparatus for administering gaseous rectal injections, according to the method of Professor Bergeon,[1] in diseases of the

[1] For details, see Nouveau Traitment des affections des Voies respiratoires et des intoxications du sang par les injections rectales gazeuses, d'apres la méthode du Dr. L. Bergeon. Par V. Morel. Paris, 1886.

respiratory passages, and in blood-poisoning; but as it had not been forwarded from the Custom House, he exhibited a substitute made in imitation. The object in view is to supply to the venous circulation an antiseptic, such as sulphuretted hydrogen, in sufficient doses to be effective; a result impossible when supplied directly to the arterial current, a plan which would poison the patient. Sulphuretted hydrogen inhaled in far less than sufficient doses would suffocate the patient; taken by the stomach, it would produce other serious results. Administered by the bowels, however, and entering the venous current already deteriorated by organic refuse, it is quickly eliminated by the respiratory tract, which thus becomes subjected to its beneficial local antiseptic effects without subjecting the system at large to injury, as when thrown into the arterial current. In other words, the parasite is killed, without killing the individual.

Its beneficial effects in phthisis are explained by the action of the gas on the suppurative and septic surfaces, and not by any influence on the bacillus tuberculosis; the consumption proper, the exhaustion, being due to the suppuration and to the consequent septicæmia, and not immediately to the bacillus, which, while it produces the destruction of tissue, does not produce the morbid phenomena. The method of administration utilizes the discovery announced by Bernard in 1857, that toxic materials introduced into the economy through an organ at a distance from the arterial system could not penetrate into the arterial system because it is eliminated before that system can be reached. Volatile substances are eliminated by the pulmonary alveoli.

The antiseptic substance employed is preferably sulphuretted hydrogen. This is propelled by means of a current of carbonic acid. It is important that the carbonic acid be freshly made, and that the injection be made without any admixture of atmospheric air, the presence of which will cause griping. The carbonic acid gas as evolved from the action of the dilute sulphuric acid upon sodium carbonate is collected in a rubber bag previously emptied of air by rolling it. This bag is then connected with a hand-ball compresser, by means of which the gas is propelled through natural sulphurous water in a sort of Wolfe bottle, driving off the sulphurous gas with it through a tube, the terminal extremity of which has been passed into the rectum. Within less than a minute the escape of the gas by the lungs can be detected in the breath.

The beneficial results obtained in pulmonary phthisis by Dr. Bergèon, and reported last July to the Académie des Sciences, have been confirmed by Professor Cornil, in a communication last October, to the Académie de Médecine, by numbers of French physicians, and by Dr. Hughes Bennett, of Mentone. Bergeon stated that the patients he considered practically cured, had no more expectoration, and only dry auscultatory signs of cicatrizing cavities, or other cicatricial results of old lesions. Some of them had become able to resume tolerable laborious employment, with full maintenance of the amelioration they had acquired. In most patients, it is said, there is a marked diminution of cough, expectoration and night sweats within two or three days. Nevertheless, the trifling expectorations of those apparently practically cured, continued to contain bacilli. This fact may be taken both for an indication that the immediate danger in phthisis is less from the bacilli than from the septicæmia which they set up, and as an indication that this protective treatment, when successful, should not be discontinued until the general healthiness of the tissues is sufficiently restored to resist the further development and sustenance of the bacillus tuberculosis.

Dr. William Osler said, that recently at the University Hospital, a patient very nearly expired after an injection of a mixture of carbon dioxide and sulphuretted hydrogen. He was not aware at the time that sulphuretted hydrogen, if given in sufficient quantities, is capable of producing poisonous effects even when taken by the rectum. This accident was mentioned lest similar mistakes may arise. Evidently the amount of sulphuretted hydrogen which is given must be small. At the Biological Society, at Paris, some experiments were related, which showed that even a few cubic centimetres are sufficient to poison a good-sized dog. In the experiences which are related in French journals, the odor of sulphuretted hydrogen is readily observed in the breath, but this has not been noticed in any of the Blockley patients. This is an exceedingly interesting, not to say comical, method of treating phthisis, but it is too early to say what the results are likely to be. Certainly, however, in Dr. Bruen's hands, at the Philadelphia Hospital, they have been extremely good.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, March 7, 1887.

The President, Edmund J. Doering, M.D., in the Chair.

Dr. Franklin H. Martin read a paper entitled

HYSTERO NEURASTHENIA, OR NERVOUS EXHAUSTION OF WOMEN.

(See page 365.)

Dr. J. G. Kiernan said: I might quarrel a little with the name adopted, as a somewhat useless addition to disease nomenclature, for it seems to me that most of the symptoms given are not characteristic of any particular disease other than the common form of nervous prostration occurring in women. Most of the symptoms given as regards the vagina, uterus, etc., are such as we would expect to find secondary to nervous exhaustion in females. Dr. Martin has not outlined the difference between a condition of neurasthenia, which occurs in a female of previously sound constitution both from heredity and other standpoints, and the condition of the woman whose ancestors have been the victims of neurosis or hereditary disease, or who has acquired a neurotic constitution. In the first of these forms a great deal can be done by combating the exhaustion, and no better system can be given than that which has been

outlined by Dr. Martin. In the last type this treatment is worse than useless. I remember that a number of patients whom S. Weir Mitchell had treated afterwards came to the private insane hospital to which I was at one time physician. With this class of patients the trouble is with the brain, and in most it is congenital. In them the *ego* is of superlative development; they are perfectly willing to be petted and fussed over, but that simply tends to develop the egotism in certain directions. In this class of cases massage is peculiarly noxious, since in many of them there is a sexual element which is likely to be increased by massage, as has been pointed out by Murrell and others. In regard to medicinal treatment, Dr. Martin has not indicated the danger of inducing habits in some of these cases by the prescription of morphine and alcohol, as Dr. Mary H. Thompson some years ago pointed out in this Society. Many a neurasthenic person has become the regular inmate of an inebriate asylum or home for opium habitues, because some physician has prescribed opium or alcohol for the treatment of insomnia.

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Stated Meeting, February 9, 1887.

THE PRESIDENT, JOS. TABER JOHNSON, M.D., IN THE CHAIR.

DR. H. D. Fry read a paper entitled,

THE VALUE OF THE ANTISEPTIC METHOD IN OBSTETRIC PRACTICE AND ITS APPLICATION TO THE FORCEPS OPERATION,

and exhibited Breus' modification of Tarnier's forceps. He spoke of the advances which had been made in recent years in the practice of obstetrics, and of the reduction of childbed mortality that had followed these improvements. He directed attention more particularly to the germ theory of disease in relation to the pathogenesis of puerperal fever, and to the adoption of antiseptic precautions for the prevention of the affection. The brilliant result that had followed the application of this line of treatment in maternity institutions was mentioned, and the antiseptic precautions demanded in the forceps operation were then dwelt upon. These precautions differ but little in detail for the various obstetrical operations, and those applicable to this one may be employed for others when modified by changes to meet the exigencies of particular cases.

The objects sought are three fold:

1. Preventing the transport of germs to the genital canal of the woman.

2. Killing those which elude our vigilance, and

3. Limiting the production of traumatic injuries as much as possible.

Dr. Fry then applied these principles to the forceps operation, and stated the rules to be observed in such practice.

DR. S. C. BUSEY asked Dr. Fry if he had any statistics showing the relative proportion of cases of puerperal fever following the use of forceps and without their use.

DR. L. MACKALL asked how long Dr. Fry had been using antiseptics, and with what result?

Dr. Fry replied to Dr. Busey, that he had no such statistics, and to Dr. Mackall, that he had been using them two and one-half years and with the most gratifying results. During the first year he used antiseptics only on every other case of midwifery. He, however, visited all his obstetric cases once, sometimes twice a day, and took the temperature and other notes at each visit. At the end of the year he compared notes, and found that the average temperature in the cases in which antiseptics had been used, was lower than in the others; in fact, the cases had not had the usual rise, the so-called "milk fever," and they had in every way a much better "getting up." In forceps cases, even with a lacerated perineum, there was usually no rise of temperature above 100°. In but a single case has he seen, in two years, "milk fever," and that was when he had forgotten to bring his tablets with him. He did what he could in the way of washing his hands, but the temperature reached 102 on the second day.

In reply to Dr. T. C. Smith as to what he thought the mortality of private obstetric practice ought to be, Dr. Fry replied, about 25 per cent.

DR. T. C. SMITH, quoting from the Health Report of Washington, for the year ending June 30, 1885, said that twenty-nine deaths were put down to puerperal fever. There were also 3334 births reported, which makes the mortality less than .9 per cent. The births probably reached 4,000, as all of them are never reported, which makes the per cent. even lower. The twenty-nine deaths were from various causes, all being put down under the general term "puerperal fever." When we recollect that a large majority of the births are in charge of midwives and in colored women in the worst possible hygienic surroundings, is there any wonder that there should be twenty-nine fatal cases? Moreover there were 393 illegitimate children and 391 stillbirths, both conditions bearing directly upon maternal mortality. Are there not sufficient causes to indicate that something besides "germs" kill? He said that he never had a serious case of puerperal fever after the use of forceps. He recalled one case of a primipara whom he delivered with forceps, and in ten days she was well.

At her next labor, he arrived too late to be of assistance and she was six weeks in getting up. Another woman he had delivered three times with forceps, but on the fourth he used neither ether nor forceps, and both he and she were sorry for it. He mentioned two other cases in which he had used the forceps, in spite of torn perineums, both made a rapid recovery.

He thought that douches during labor remove the mucus, the natural lubricant of the vagina, and that after labor they are worse than useless, for if nature had intended the parts to be antiseptic she would have made them so. In his opinion the lochia are antiseptic, for they plug the open absorbents, and if they are removed by douches there is an increased chance of infection. If we expect to keep out germs, we must go back of the vagina into the uterus,

where there is a large surface of open mouthed veins ready to absorb them. Yet he ventures to assert that there are not a half-dozen doctors in Washington, who wash out the uterus in all cases, or even three who use intra-uterine injections after the forceps. He thought that in a population where there was so much bad hygiene, illegitimate pregnancies and abortions, that it was surprising that there were "only" twenty-nine deaths from puerperal fever.

Dr. A. Y. P. Garnett said, that now-a-days when any man opposed antiseptics, he laid himself open to criticism. He thought that individual experience was worth more than all the hospital statistics put together. He has a pair of forceps with which he has delivered sixty-two women; he has never used antiseptics, and has never had a case of puerperal fever in these sixty-two cases. He thought that the great value of Listerism was in the systematic cleanliness which it introduced into medicine and surgery; this, with better hygienic surroundings, was more potent for good than the killing of germs by antiseptics. He expressed little faith in the germ theory.

Dr. S. C. Busey has more than once committed himself to antiseptic obstetrics. He may not follow the details of some of its most enthusiastic followers, but he always, to a greater or less degree, follows the antiseptic treatment in puerperal cases. Dr. Smith was wrong if he thought that those who adopted this method of treatment believed it would or ought to save every puerperal woman. They claimed, and it had been proven, that antisepsis had greatly reduced the mortality of the lying-in. The statistics Dr. Smith had quoted were only accurate in showing the number of deaths, but were valueless in regard to the causes of death. Maternity hospitals supplied the most reliable statistics, and they exhibited a greatly diminished mortality since the introduction of antiseptic midwifery. In his opinion, absolute cleanliness was the essential part of antisepsis. He frequently relied upon cleanliness and hot water vaginal injections. In all cases of post partum hæmorrhage and adherent placenta, and in some cases of instrumental labor, he employed intra-uterine hot water irrigation with the most satisfactory results. He would not advise intra-uterine irrigation as a routine practice, but whenever he had employed this method he had a rapid and complete convalescence. He believed the lochial discharge was a pathological rather than a physiological discharge. The statement that one may have had 100 cases of obstetrics without a single death, though not using antiseptics proves nothing. The next 100 cases may show a very different result. It is only in dealing with larger numbers that the value of antisepsis can be shown. The results in large maternity hospitals where it has been employed demonstrate its value. In private practice and in the country where the cases are isolated its value is not so apparent. He did not consider all the minute details of the antiseptic method essential to success in every case. They may be sometimes overdone, but we cannot tell in which they may be safely dispensed with. We do know there is vastly less serious illness and fewer deaths since their introduction.

Dr. C. W. Johnston said that Dr. Smith mentioned with surprise the fact that only twenty-nine women a year died of puerperal fever, when we consider the fact that a great number are "colored" women with the worst hygienic surroundings, etc. So far as his observation goes, and he believes the experience of the President agrees with his, he finds the colored race peculiarly insusceptible to certain inflammatory diseases which are destructive to the whites. In his service at the Central Dispensary, in about 500 colored and white women, equally exposed to disease, he found relatively fewer colored women suffering from pelvic inflammation than he did white women. Among the colored there are frequent cases of venereal disease, but even in those with the so-called "latent gonorrhœa" he has been able to find but one case of pyosalpinx.

Dr. Mackall said the statements made by Dr. Fry had made more impression upon him than all the statistics. It is true that he thought he had seen but one fatal case of puerperal fever, and that in consultation, he had always considered himself lucky to get off without trouble after forceps delivery. In his experience there has usually been more or less offensive discharge in these cases. He does not believe that there is a specific germ for puerperal fever, but some malign influence conveyed to the woman, from either a cadaver, a case of erysipelas, or something of that sort. Formerly we were unable to stop the epidemics of what was then called "metritis," with calomel, etc., but lately he has seen severe cases checked by bromo-chloralum, which was the form of antiseptic he used. He contends that if such a result can be obtained from antiseptics in an infected system they must be infinitely more valuable as a preventive of the ingress of the poison.

Dr. Smith said that the hospitals of the present day were not as they were—say sixty years ago. In those days there was faulty drainage, and as likely as not cess-pools were just under the windows. One could not expect such results as we get now a days, under those conditions. Dr. Busey had referred to the use of antiseptics in post-mortem hæmorrhage. In one of the cases he had just alluded to there had been tremendous hæmorrhage which he had stopped by packing with ice. No antiseptic had been used, and still there was a good recovery. In another case in which he had applied the forceps to the after-coming head, there had been no fever, though without the use of antiseptics. Dr. Busey says that he may have septicæmia at any time unless he uses antiseptics. He would say to Dr. Busey that *he* may at any time meet a case which antiseptics would not save. He did not believe that a germicide strong enough to kill the germ would be tolerated in the uterus. One of the most poisonous of gases, sulphuretted hydrogen, is common enough in the intestine, and yet nearly every child has had intestinal worms of some sort, upon which the poisonous gas failed to act.

Dr. Mackall asked Dr. Fry if he has had any cases of mammary abscess since using antiseptics. He has had several cases, all following fissures of or about the nipples. He understands it is claimed that the use of antiseptics is preventive of abscess. The

need of forceps is increasing. One supposes that he is going to have a short labor, but the pains gradually diminish in intensity and the head stops in its descent. Ergot has no effect or is dangerous; it may be successful in starting up pains or it may fail, chloral has failed; and finally resort to the forceps is necessary. If, as seems probable, the danger to the mother is increased by their use, we must find some means to lessen the mortality, and this we seem to have in antiseptics.

DR. FRY, in closing, said that puerperal fever does not occur often in the practice of midwives and in the class of patients which Drs. Smith and Gleeson speak of as being attended by these women. It was this fact, among others, that led Semmelweiss to make the investigations that subsequently laid the foundation for antiseptic treatment. The disease is far more prevalent among the patients attended by practicing physicians, and the infection is probably conveyed by the examining finger of the obstetrician. Parvin relates the case of a French surgeon who, after having visited a patient suffering with phlegmonous inflammation of the thigh, made a vaginal examination of his wife. The lady had been delivered seventeen days before, and up to that time was doing well. She contracted septicæmia and died. Dr. Smith says he has never had a serious case of any nature after the use of forceps; without them he has had four cases of puerperal fever and two deaths. He goes on to argue the question in such manner as to make one believe that the universal application of forceps would be desirable. In the case which Dr. Smith relates where forceps was used in three labors but not in the fourth, and the patient did well after all the labors except the last. Dr. Fry supposes that the same indications for the use of instruments existed in the last labor as in the others, and they should have been used.

Dr. Smith's objection to the use of vaginal douches during labor, and his theoretical ideas regarding the value of the vaginal mucus, cannot have much weight when opposed to the combined experience of obstetricians who have all the opportunities of perfecting antiseptic precautions by observation in maternity institutions. As a matter of fact Dr. Fry does not himself employ vaginal injections during labor unless it is protracted. He does, however, without exception, employ them before and after the use of forceps or any instrumental interference. He does not approve of antiseptic vaginal injections during the puerperium unless demanded by some complication—fetid lochia, fever, etc. He quoted from an article by Dr. Baruch, of New York, the results of a number of maternity hospitals, all of which employed antiseptic precautions. These precautions were much the same in all of the hospitals except one class used vaginal douches during the lying-in, while the other only made use of them when specially indicated. The advantage, as demonstrated by percentage of recoveries, was strongly in favor of the latter.

According to Dr. Smith, if prophylactic douches be given at all, they should be applied into the uterine cavity. This is directly contrary to the chief rule of antiseptic treatment, which teaches that everything is dangerous that is not absolutely necessary. The dangers of prophylactic intra uterine injections have been demonstrated by Hoffmeier. In a series of cases, over 200 in number, he administered an intra uterine injection as soon as labor was completed, and in another series of about the same number of cases, he omitted the injections. The morbidity was fifty per cent. greater in the cases that were treated by the injections. Even when fever exists, intra-uterine injections should not be used until vaginal douches have failed to give relief. Delay, however, must not be permitted many hours.

Dr. Garnett attributed to cleanliness the success of the antiseptic system. It is, indeed, the basis of that system, but epidemics of childbed fever were not arrested until antiseptics were employed. When Semmelweiss began his labors at the Vienna Obstetric Clinic, he found a maternal mortality of more than 5 per cent. cleanliness, ventilation, and isolation were brought to bear against the disease, and it went up in spite of all to a 10 per cent. death rate. A solution of chloride of lime was employed to wash the hands, instruments, etc., and the performance of operations prohibited, and the mortality immediately dropped to 1.25 per cent. Dr. Smith asserted that an antiseptic solution strong enough to kill germs cannot be used for intra-uterine injection without injury to the woman. A solution of bichloride of mercury 1 to 20,000 is strong enough to destroy the vitality of micro-organisms, and yet it is used for intra-uterine injection in the proportion of 1 to 2000. The excellent results that follow antiseptic treatment are not attributable, as Dr. Smith suggests, to the use of modern and well-built hospitals. The success is equally great in the older institutions, which formerly were scourged by puerperal fever. The Paris Maternity and the Vienna Hospital illustrate this fact.

Dr. Fry had met with but two cases of mammary abscesses in his practice, and suppuration had occurred in these before they came under observation. Dr. Alloway, of Montreal, says he has not had a case of suppurative mastitis since he has been employing antiseptic vaginal douches during and after labor, while before that practice was adopted it was not uncommon. According to the observations of Behm, the staphylococcus and streptococcus are found in the pus of mammary abscesses, and he offers the more plausible theory that they gain access to the gland lobules through fissures of the nipple.

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Diabetes—Large Ventral Hernia—The Aneurismal Diathesis—Glycozone.

At the last meeting of the County Medical Association Dr. Austin Flint made some very interesting remarks concerning diabetes, of which, as is well

known, he has of late years been making a special study. The case which suggested them was one which was related by Dr. Gouley. The patient was a lady 72 years of age, who suffered from ventral hernia for more than twenty years, and Dr. Gouley said it was the largest ventral hernia that he had ever seen. She had also been diabetic for at least thirteen years, and the form of glycosuria with which she was affected was that which the French term intermittent glycosuria. She finally died of exhaustion in an attack of acute bronchitis, and at the autopsy the hernial sac was found to consist of nothing but skin, and that very thin. Dr. Gouley said he had always advised against operative interference in the case, and the condition of affairs found after death showed how unavailing any operation would have been. The sac contained the entire intestinal canal, with the exception of the duodenum, the caput coli, and the rectum; so that it could not possibly have become any larger than it was. The diameter of the neck of the sac was no less than nine inches. There was marked sclerosis of both the kidneys and of the spleen, and this condition was no doubt attributable to an old mitral stenosis which was found to be present.

In commenting upon the case, which he had seen in consultation with Dr. Gouley, Dr. Flint remarked that it presented some points of extreme interest to him. This intermittent diabetes was a variety of the disease which he had seldom observed, and in regard to which he said he had formerly been somewhat skeptical. There could be no doubt, however, that this was an instance of true intermittent diabetes, and not one of those cases, of which he had seen quite a number, in which the sugar disappears from the urine for a time after the patient undergoes a moderate restriction of diet. The case was of great interest, again, as regards the matter of diabetic coma. This patient had at no time exhibited the slightest tendency to coma, but retained consciousness perfectly up to the last. In her enfeebled condition she was unable to dislodge the mucus accumulated in the bronchial tubes, and died simply of exhaustion.

Dr. Flint then referred to another case of diabetes which he had recently seen in consultation with Dr. Frederic Dennis. The patient was a lady 70 years of age, who for seven or eight years had had diabetes which was by no means of an intermittent character. On the contrary, it was persistent in character, and was attended with nearly all the typical symptoms of the disease. For some time the case had been under the care of Dr. Lusk, but on account of the fact that gangrene attacked one of the patient's feet it was transferred by him to Dr. Dennis. She had been taking very large quantities of milk daily, and this was stopped by Drs. Dennis and Flint, who also placed her upon a very strict anti-diabetic diet and gave her Clemens' solution of arsenite of bromine in 3-drop doses. Under this treatment the improvement in her condition was very marked. The quantity of urine passed *per diem* was reduced from 110 to 50 ounces, and sugar was entirely eliminated from it. The condition of the foot also improved for a time, but the gangrene afterwards extended, and the patient finally died of exhaustion. In this case, also, the patient's mind remained perfectly clear to the last, and there was not the slightest approach to anything like diabetic coma.

Dr. Flint went on to say that during the last two or three years he had accumulated records of almost ninety cases of diabetes, and that he had taken unusual care to follow them up. Some of the patients had died under his observation, but he had never yet met with a single instance of diabetic coma. He had, however, records of cases, seen by him at one time or another, which had terminated fatally under other physicians, and in which the patients were reported by them to have been the subjects of diabetic coma. In this connection he related the case of a very wealthy lady to whom the restraint of the restricted anti-diabetic diet became intolerable and who, on leaving for the country, announced her intention of trying the effect of a return to general diet for a time. He afterwards learned that she had died in a state of coma. He also knew of another case in which the patient died of diabetic coma after indulging in a protracted "sugar debauch." In still another case the patient had died in the same way after travelling to Carlsbad. During the journey to that resort she had lived upon an unrestricted diet, and he had been informed by her physician that by the time she arrived there she was in a practically hopeless condition.

The idea had been expressed in certain quarters that the restriction to anti-diabetic diet tended to produce diabetic coma; but Dr. Flint's experience was directly opposed to any such theory. So far from its leading to this condition, he was convinced that it was extremely rare for patient's to die of diabetic coma while they were living on a strict anti-diabetic diet, and he believed that this restricted diet actually prevented, or tended to prevent, diabetic coma. This condition was apparently due to the presence in the blood of some obscure poison which the kidneys were unable to throw off, and it was noticeable that when the coma came on, the sugar disappeared from the urine. He was at present engaged in a series of investigations upon this important subject, and hoped that at no distant date he should be able to ascertain certain facts which might perhaps throw some light upon it. In conclusion, he made some remarks upon the neglect of patients to faithfully carry out the anti-diabetic regimen. It was this which had brought the method into bad repute, and he thought that physicians, as a rule, did not pay sufficient personal attention to the diet of their cases. It was very important that this should be made as pleasant as possible for the patient, and that no efforts should be spared to constantly tempt his appetite with novel articles and dishes belonging to the allowable class.

The paper of the evening was by the President of the Association, Dr. John Shrady, and was on the subject of *The Aneurismal Diathesis*. He said that he was not sufficiently settled in his convictions to formulate any law comprehensive enough to embrace all cases, but thought he was warranted in making the

statement that a tendency to aneurism might be recognized in the following instances:

1. In individuals possessing a large, not necessarily hypertrophied, heart, the pulsations of which are quick and forcible; this condition generally being present in the long-bodied and short-limbed. These individuals are necessarily muscular, to compensate for a relatively poorly developed osseous system.

2. There are certain racial configurations in which fatty degenerations are prominent, as, for example, among the Teutons, and exceptionally among the Celts, in which the aneurismal tendency is a marked feature.

3. There may be an induced or cultivated diathesis, as among those addicted to athletic sports, who primarily over-tax the heart, and secondarily the circulation.

4. Obesity, as presenting an enfeebled resistance to forces which have been adjusted to a different condition of things.

5. The diathesis may be latent from lack of circumstances awakening it into existence, as in the case of those leading lives of luxury and ease.

In conclusion, he remarked that the absence or suppression of the emotional temperament may retard or altogether avert the final catastrophe.

On this occasion he introduced to the notice of the Association two new antiseptics and disinfectants, which he had tested with very satisfactory results in his own practice. These are glycozone, consisting of chemically pure glycerine with four volumes of ozone, and solution of peroxide of hydrogen, and they both possess the advantages of being colorless fluids.

As Mayor Hewitt was prohibited by the law from appointing a physician successor to General Shaler, as President of the Board of Health, he did the next best thing by giving the position to an expert in sanitary science outside the profession. Mr. James C. Bayles, the Mayor's selection, for the past sixteen years has been editor of the *Iron Age and Metal Worker*, and has long been considered an authority on drainage and sanitary engineering. In addition, he is a gentleman of much public spirit, and while his appointment has been a source of chagrin to the politicians, the community in general has every reason to be satisfied with it.

At the commencement of the University Medical School this year there were 151 graduates; at that of the Bellevue School 134; and that of the Long Island College Hospital, in Brooklyn, 30. The thirtieth annual commencement of the New York College of Veterinary Surgeons and School of Comparative Medicine, was held at the Carnegie Laboratory March 16th. when the address to the graduates was made by Prof. Joseph H. Raymond, of Brooklyn, and the diplomas were presented by the President, Dr. Wm. T. White. This is the oldest veterinary school in the country, having been chartered in 1857, and its friends have of late been interesting themselves greatly in its behalf; so that it is now provided with a most excellent Faculty, and with every needed facility for the successful scientific and practical study of this department of medicine. P. B. P.

ASSOCIATION ITEMS.

AMERICAN MEDICAL ASSOCIATION.

SECTION OF OBSTETRICS AND DISEASES OF WOMAN.

The following papers, in addition to those mentioned in THE JOURNAL, January 15, 1887, are announced for the June meeting in Chicago:

1. Ely Van de Warker, Syracuse, N. Y., "Laparotomy as a Cure for Tuberculosis of the Peritoneum."

2. John A Miller, San Francisco, Cal., "Erosions *vice* Ulcerations of the Vaginal Portion and their Relation to Lacerations of the Cervix, with Practical Hints when not to Perform Emmet's Operation."

3. John Morris, Baltimore, Md., "Treatment of Placenta Prævia."

4. Wm. M. Findley, Altoona, Pa., "Ante-partum Hæmorrhage."

The following gentlemen have signified their intention of contributing papers, but have not yet announced the topics:

H. F. Campbell, Augusta, Ga.
L. Ch. Boislinière, St. Louis, Mo.
S. S. Todd, Kansas City, Mo.
E. H. Trenholme, Montreal, Can.

[Signed] F. M. JOHNSON, M.D., *Chairman*,
Kansas City, Mo.

W. W. JAGGARD, M.D., *Secretary*,
2330 Indiana Ave., Chicago.

MISCELLANEOUS.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 19, 1887, TO MARCH 25, 1887.

Capt. Wm. W. Gray, Asst. Surgeon, leave of absence further extended two months. S. O. 62, A. G. O., March 17, 1887.

First Lieut. Guy L. Edie, Asst. Surgeon, leave of absence extended three months. S. O. 67, A. G. O., March 23, 1887.

First Lieut. Jefferson D. Poindexter, Asst. Surgeon (recently appointed), ordered for temporary duty at U. S. Military Academy, West Point, N. Y., relieving Capt. Richard W. Johnson, Asst. Surgeon, who will return to his proper station (Ft. Adams, R. I.). S. O. 62, A. G. O., March 17, 1887.

Capt. Frank Reynolds, Asst. Surgeon (retired), died March 4, 1887, at Oakland, Cal.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING MARCH 26, 1887.

Cordeiro, F. J. B., Asst. Surgeon, detached from the Navy Yard, Boston, and placed on waiting orders.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED MARCH 26, 1887

Bailhache, P. H., Surgeon, to proceed to Mobile, Ala., Pensacola, Fla., Ship Island, Miss., and New Orleans, La., as inspector. March 14, 1887.

Long, W. H., Surgeon, granted leave of absence for seven days. March 16, 1887.

Goldsborough, C. B., Surgeon, granted leave of absence for thirty days. March 14, 1887.

Devan, S. C., P. A. Surgeon, to proceed to Tacoma, Washington Territory, as inspector. March 19, 1887.

Long, W. H., Surgeon, leave of absence extended five days. March 23, 1887.

Urquhart, F. M., P A. Surgeon, relieved from duty at Norfolk, Va; ordered to Washington, D. C., on special duty. March 22, 1887.

Pettus, W. J., Asst. Surgeon, when relieved by P. A. Surgeon Guitéras, to remain at Charleston, S. C., "waiting orders." March 24, 1887.